Final Environmental Impact Report

for the

WEST ROSEVILLE SPECIFIC PLAN

and Sphere of Influence Amendment

(State Clearinghouse No. 2002082057)

Volume I

Chapters 1, 2, 3, and 4 (Sections 4.1 through 4.10)

Prepared for: CITY OF ROSEVILLE TRADITION · PRIDE · PROGRESS

Prepared by: EIP ASSOCIATES



January 9, 2004

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PREFACE[1]

This document, in its entirety (Volumes I, II, III, IV(A), IV(B), V, and VI), constitutes the Final Environmental Impact Report (Final EIR) for the West Roseville Specific Plan and Sphere of Influence Amendment Project (proposed project). A Final EIR is defined by Section 15362(b) of the California Environmental Quality Act (CEQA) Guidelines as "…containing the information contained in the Draft EIR; comments, either verbatim or in summary, received in the review process; a list of persons commenting; and the response of the Lead Agency to the comments received."

This Final EIR is composed of six volumes. In accordance with Section 15132 and 15088(c)(1) of the CEQA Guidelines, and to facilitate review by the public, Volumes I through IV-B of the Final EIR contain the full text of the Draft EIR, including its appendices, as revised to respond to comments received during the comment period and/or as initiated by the Lead Agency. Volumes V and VI of the Final EIR contain the comments received on the Draft EIR, responses to those comments, revisions made to the Draft EIR, meeting notes of various public hearings on the project, and a list of persons, organizations, and public agencies commenting on the Draft EIR.

Specific components of the Final EIR include the following:

Volumes I and II

Draft EIR, As Revised in Response to Comments—These volumes describe the existing environmental setting of the project site; analyze potential impacts on that setting due to implementation of the proposed project; identify mitigation measures that could avoid or reduce the magnitude of significant impacts; evaluate cumulative impacts that would be caused by the project in combination with other future projects or growth that could occur in the region; analyze growth-inducing impacts; and provide a full evaluation of the alternatives to the proposed project that could eliminate, reduce, or avoid project-related impacts. The text of the Draft EIR has been revised to reflect changes received in response to comments, with vertical margin notes indicating that a text change was made. The revised Draft EIR is not presented in ~~strikethrough~~ or <u>double-underline</u> format in order to provide an easy-to-read document.

[1] This preface includes and adds to the Preface provided in the Draft EIR.

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Volumes III, IV(A), and IV(B) **Technical Appendices**—These volumes contain a number of reference items providing support and documentation of the analysis performed for this report. All appendices from the Draft EIR are included, as well four new appendices that have been provided in response to comments received on the Draft EIR.

Volumes V and VI **Text Changes and Responses to Comments**—These volumes contain an explanation of the format and content of the Final EIR; all Draft EIR text changes; a complete list of all persons, organizations, and public agencies that commented on the Draft EIR; copies of the comment letters; meeting notes from the public hearing(s) and the Lead Agency's responses to all comments. All text revisions to the Draft EIR have been excerpted and restated in Section 13 of Volume V in ~~strikethrough~~ (to indicate deletions) or double underline (to indicate additions).

ENVIRONMENTAL REVIEW PROCESS

The Draft EIR for the proposed project was issued on September 15, 2003, and circulated for public review and comment for a 45-day period that ended on October 29, 2003. During the public review period, copies of the Draft EIR were distributed to public agencies through the State of California, Office of Planning and Research. During the 45-day public review period, the EIR was also available for review at the following locations:

City of Roseville Planning Department
311 Vernon Street
Roseville, CA 95678
Hours: Monday–Friday 8 A.M.–5 P.M.

Roseville Main Library
225 Taylor Street
Roseville, CA 95678
(916) 774-5221
Hours: Monday–Thursday 9 A.M.–9 P.M.
Friday and Saturday 9 A.M.–5 P.M.
Sunday CLOSED

Maidu Branch Library
1530 Maidu Drive
Roseville, CA 95661
(916) 774-5900
Hours: Tuesday and Wednesday NOON–8 P.M.
Thursday–Saturday 9 A.M.–5 P.M.
Sunday and Monday CLOSED (except for holiday weekends, CLOSED, Saturday–Monday)

Auburn-Placer County Library
350 Nevada Street
Auburn, CA 95603
Hours: Monday, Tuesday, Wednesday
10 A.M.–6 P.M.
Thursday 10 A.M.–6 P.M.
Friday, Saturday 10 A.M.–5 P.M.
Sunday CLOSED

Interested parties were also able to provide comments on the EIR in written form submitted to

City of Roseville Planning Department
311 Vernon Street
Roseville, CA 95678
Attn: Kathy Pease

Although not required by CEQA or the CEQA Guidelines, a series of public meetings for the proposed project were held to solicit input from interested agencies, individuals, and organizations regarding the range of actions, alternatives, mitigation measures, and significant effects on the environment that were analyzed in the EIR. Planning Commission meetings were held on October 9, November 6, November 13, and December 4, 2003, at which public testimony was received. In addition, the City held a number of other Commission meetings during which the proposed project was considered and public testimony was received: On September 30, 2003, a Public Utilities Commission meeting was held, during which public comments on the Draft EIR were accepted, and recommendations were made to the Planning Commission. A Parks and Recreation Commission meeting was held on October 2, 2003, during which public comments on the Draft EIR were accepted, and comments were forwarded to the Planning Commission. On October 21, 2003, a Transportation Commission meeting was held, during which public comments on the Draft EIR were accepted, and comments were forwarded to the Planning Commission. A public workshop was also held, which was a joint workshop of the Planning Commission, Public Utilities Commission, Transportation Commission, and Parks and Recreation Commission, on September 23, 2003, during which the public was given the opportunity to comment on and gather more information about the proposed project. Approximately 15 persons presented verbal comments on the proposed project during the Planning Commission meetings or other officially sanctioned City Commission meetings, and 35 written comment letters were received during the public review period for the Draft EIR. All meetings except the public workshop, which was held in at the City's Corporation Yard, were held in the City Council Chambers of the City of Roseville. The project will also be considered (and public testimony received) at City Council meetings tentatively scheduled for January 21, 2004, and February 2004.

REVISIONS TO THE DRAFT EIR

In the Draft EIR, where there are changes, they are indicated with a vertical margin note. The same revisions to the text of the Draft EIR have been excerpted in Volume 5 of this Final EIR, and are indicated with ~~strikethrough~~ text for deletions and double underline text for additions.

MITIGATION MONITORING PROGRAM

An MMP will be adopted by the City of Roseville for the proposed project, as required for compliance with Sections 21081(a) and 21081.6 of the Public Resources Code. All mitigation measures included in the Final EIR for this project would be monitored by the appropriate entity and reported on an annual basis, as indicated in the MMP.

OVERVIEW AND PURPOSE OF THE FINAL EIR

This document has been prepared by the City of Roseville as the Lead Agency in conformance with CEQA. The City of Roseville has determined that an Environmental Impact Report (EIR) is required for the proposed project, which consists of (1) amending the City's sphere of influence (SOI) to include a 5,527-acre area immediately west of the City of Roseville (City) corporate boundaries; (2) adopting the West Roseville Specific Plan (WRSP), which covers a 3,162-acre portion of the 5,527-acre SOI Amendment Area; and (3) annexing the WRSP Area into the City's jurisdiction. The 2,365-acre portion of the project site outside of the WRSP boundaries is referred to as the "Remainder Area."

This EIR provides environmental review to assist the public agency decision-makers in considering approval or denial of the proposed project. In conformance with the CEQA Guidelines, this EIR provides objective information regarding the environmental consequences of the proposed project and identifies feasible measures to lessen or avoid the project's significant effects on the environment. This EIR also examines a range of reasonable alternatives to the project that would reduce or eliminate significant environmental impacts. The following information is included in the CEQA Guidelines to clarify the role of an EIR:

> **Section 15121(a) Information Document.** An EIR is an informational document which will inform public agency decisionmakers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR, along with other information which may be presented to the agency.

This EIR has been prepared at two levels of specificity, as described below. The CEQA Guidelines describe a number of variations in EIRs. It also states that, "…These variations are not exclusive. Lead

Agencies may use other variations consistent with the Guidelines to meet the needs of other circumstances" (Section 15160):

> **Section 15146 Degree of Specificity.** The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity, which is described in the EIR.
>
> (a) An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy.
>
> (b) An EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or a local general plan should focus on the secondary effects that can be expected to follow from the adoption, or amendment, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow.

Consistent with the Guidelines, this EIR examines the project-specific impacts of implementing the proposed WRSP (consisting of the West Roseville Specific Plan and the SOI amendment for and annexation of the WRSP area), and also examines the effects of amending the City's sphere of influence outside of the WRSP area to include the Remainder Area. Because no specific development plan is proposed for the Remainder Area at this time, the environmental analysis of the Remainder Area is provided at a programmatic level. Prior to City approvals that would allow development in the Remainder Area, annexation, preparation of a specific plan, and additional environmental review would be required:

> **Section 15151 Standards for Adequacy of an EIR.** An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision, which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good-faith effort at full disclosure.

All documents referenced in this EIR are available for public review during normal business hours in the City's Permit Center, which is located at 311 Vernon Street, in the City of Roseville, California.

FINAL ENVIRONMENTAL IMPACT REPORT
FOR THE
WEST ROSEVILLE SPECIFIC PLAN AND SPHERE OF INFLUENCE AMENDMENT

Mitigation Monitoring Program

Prepared for
City of Roseville

Prepared by
EIP Associates

January 9, 2004

MITIGATION MONITORING PROGRAM FOR WEST ROSEVILLE SPECIFIC PLAN AND SPHERE OF INFLUENCE AMENDMENT

INTRODUCTION

Section 15097 of the California Environmental Quality Act (CEQA) requires that all State and local agencies establish monitoring or reporting programs for projects approved by a public agency whenever approval involves the adoption of an Environmental Impact Report (EIR).

The mitigation monitoring program (MMP) contained herein is intended to satisfy the requirements of CEQA as it relates to the West Roseville Specific Plan (WRSP) and Sphere of Influence Amendment EIR. This MMP is intended to be used by City Staff and mitigation monitoring personnel to ensure compliance with mitigation measures during project implementation. Mitigation measures identified in this MMP were developed in the Draft EIR prepared for the proposed project.

The Final EIR for the proposed project presents a detailed set of mitigation measures applicable to implementation of the West Roseville Specific Plan. In addition, the EIR includes program-level mitigation measures for the Remainder Area (the area outside of the West Plan that is only the subject of a sphere of influence amendment at this time). The mitigation measures were initially developed during preparation of the Draft EIR (September 15, 2003) and, in some cases, were refined during preparation of the Final EIR (January 9, 2004).

The intent of the MMP is to ensure the effective implementation and enforcement of all adopted mitigation measures. The MMP will provide for monitoring of construction activities, as necessary, and in-the-field identification and resolution of environmental concerns.

MITIGATION MONITORING PROGRAM DESCRIPTION

Compliance

The City of Roseville will coordinate monitoring activities and document the implementation of mitigation measures. The table below identifies the mitigation measures, the monitoring actions, the implementing entities, the responsible parties for monitoring actions, and the timing of mitigation actions. The entity identified as having implementing responsibility has the primary duty to execute the mitigation measure. For mitigation measures relating to the WRSP, "the applicants" shall refer to Westpark Associates and Signature Properties. For mitigation measures relating to the Remainder Area,

"the applicants" shall refer to any entity that seeks entitlements for development of a project in the Remainder Area. In some instances this may require contracting for specialized consultant services. In instances where the implementing responsibility is shared between the City and Construction Contractors, the City would be responsible for ensuring that mitigation requirements are implemented.

Field Monitoring of Mitigation Measures

Prior to the issuance of grading and building permits, while detailed development plans are being prepared for approval by City staff, City staff will be responsible for ensuring compliance with mitigation monitoring applicable to the project design phase.

During construction and following the project, the City's Public Works Department will assign inspectors who will be responsible for monitoring the implementation of the mitigation measures. The inspectors will report to the City's Public Works Department and will be thoroughly familiar with mitigation measures in the MMP. In addition, the inspectors will be familiar with construction contract requirements, schedules, standard construction practices, and mitigation techniques. The City will be responsible for onsite, day-to-day monitoring of construction activities, reviewing construction plans and equipment staging/access plans to ensure conformance with adopted mitigation measures. The City will also have the authority to enforce mitigation measures by suspending particular construction activities.

Once construction has been completed, the City will monitor the project as necessary.

If any mitigation measures are not being implemented, the City may pursue corrective action. Penalties that may be applied include, but are not limited to, the following: (1) a written notification and request for compliance; (2) withholding of permits; (3) administrative fines; (4) a stop-work order; (5) criminal prosecution and/or administrative fines; (6) forfeiture of security bonds or other guarantees; (7) revocation of permits or other entitlements.

Changes to Mitigation Measures

Any substantive change in the monitoring plan made by City staff shall be reported in writing to the Planning Department. Modifications to the mitigation measures may be made by City staff subject to one of the following findings, documented by evidence included in the record:

a. The mitigation measure included in the Final EIR and the Mitigation Monitoring Program is no longer required because the significant environmental impact identified in the Final EIR has been found not to exist, or to occur at a level which makes the impact less than significant as a result of changes in the project, changes in conditions of the environment, or other factors.

OR

b. The modified or substitute mitigation measure to be included in the Mitigation Monitoring Program provides a level of environmental protection equal to or greater than that afforded by the mitigation measure included in the Final EIR and the Mitigation Monitoring Program; and the modified or substitute mitigation measures do not have significant adverse effects on the environment in addition to or greater than those which were considered by the responsible hearing bodies in their decisions on the Final EIR and the proposed project; and the modified or substitute mitigation measures are feasible, and the City, through measures included in the Mitigation Monitoring Program or other City procedures, can ensure their implementation.

Findings and related documentation supporting the findings involving modifications to mitigation measures shall be maintained in the project file with the Mitigation Monitoring Program and shall be made available to the public upon request.

Mitigation Monitoring Program

The table presented on the following pages provides the MMP for the proposed project. The MMP identifies (1) an explanation of each impact by issue area, summarized as an impact statement; (2) the full text of the statement mitigation measure(s) applicable to each impact statement; (3) the method and/or process by which the mitigation measure will be implemented; (4) the timing of implementation of each mitigation measure; and (5) the party responsible for ensuring implementation of each mitigation measure.[1]

[1] Under "Reviewing Party," the term "Applicant" or "Landowner" refers to West Roseville Development Company, Inc. (formerly Signature Properties) and 1600 Placer Investors, Inc. (as managed by Westpark Associates).

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
4.1 Land Use and Agricultural Resources				
Impact 4.1-1: Potential incompatibility of internal land uses.	**WRSP Area** ***MM 4.1-1***: Deed Disclosure In order to reduce conflicting issues between sensitive receptors and agricultural uses, residential units within 500 feet of the orchard or any other active agricultural use shall be provided with a deed disclosure or similar notice approved by the City Attorney regarding the proximity and nature of neighboring agricultural uses. This disclosure shall be applied at the tentative map stage to the affected properties. A written disclosure shall be supplied to the property purchaser or renter by the vendor prior to the completion of the purchase or rental agreement. The text of the disclosure language shall be approved by the City Attorney. To ensure that residents are made aware of other land uses in proximity to their respective neighborhoods, the developers shall also provide through deed disclosure or other similar notice approved by the City Attorney; the temporary truck route to the PGWWTP and Roseville Energy Park, use of recycled water, proximity to the PGWWTP, proximity to the potential Roseville Energy Park, proximity to parks and schools that may generate noise and light, and proximity to overhead power lines. To further mitigate noise and lighting impacts, MM 4.5-1, MM 4.5-5, MM 4.5-6, MM 4.5-8, MM 4.13-1(a) and MM 4.13-1(b) from Section 4.5 (Noise) and Section 4.13 (Aesthetics and Visual Quality) would be required to mitigate Impact 4.1-1. Refer to the Noise and Aesthetics and Visual Quality sections below for a discussion of these mitigation measures.	At the time of the approval of the first small lot tentative map, the applicant shall provide deed disclosures which shall be incorporated into the final map and thereafter into any deed for residential lots within 500 feet of active agricultural uses applied at the tentative map stage to the affected properties.	Prior to sale of the property to homeowner.	City Attorney and the Planning Director will ensure that mitigation measures are implemented
	Remainder Area Potential land use compatibility impacts ***MM 4.1-2***: Policies to Minimize Agricultural Impacts Specific Plans and/or other development proposals for the Remainder Area shall minimize conflicts between residential and agricultural uses. Measures to ensure compatibility could include (1) deed disclosure regarding the proximity and nature of neighboring agricultural uses for future residential units within 500 feet of any active agricultural use, (2) minimum 50-foot setbacks from residential structures and agricultural uses, (3) negative easements, and/or (4) other equally effective measures. To further mitigate noise and lighting impacts, MM 4.5-2 (Construction noise policies), MM 4.5-4 (Commercial noise policies), MM 4.5-7 (School noise policies), MM 4.5-9 (Park noise policies), and MM 4.13-2 (Light and glare policies) would be required to mitigate Impact 4.1-1. Refer to the Noise and Aesthetics and Visual Quality sections below for a discussion of these mitigation measures.	Impacts would be reduced throughThe Applicant shall include site-specific design measures, such as setbacks, landscape buffers, building orientation, and appropriate design features, required through the specific plan and environmental review process required before development in the Remainder Area is allowed to move forward.	Specific Plans would be required prior to approval of annexation, deed disclosures would be required at the tentative map stage	The Planning Director shall ensure that uses are compatible. The Code Enforcement Inspector shall respond to nuisance complaints.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.1-2: Potential incompatibility with existing agricultural and other land uses in the remainder area, the County, and the City of Roseville.	**WRSP Area** *Refer to* ***MM 4.1-1****:* Deed Disclosure ***MM 4.1-3***: Provide 50-foot Setback Agricultural land is located north of the WRSP (Fiddyment Ranch property). Residential uses shall be separated by a minimum 50-foot buffer from living structures on Parcels F-13 and F-14 abutting existing agricultural lands in the northeast corner of the Fiddyment property. The buffer could include roads, landscape corridors, and rear yard setbacks.	Setbacks The Applicant shall show the required buffer on the Tentative map for lots F-13 and F-14.	Prior to issuance of building permits	Public Works Director and Planning Director shall ensure that the 50-foot setback is identified on the map.
	Remainder Area Refer to **MM 4.1-2:** Policies to Minimize Agricultural Impacts			
Impact 4.1-4: Conversion of agricultural land to developed uses.	**WRSP Area** ***MM 4.1-4***: Provide Conservation Easement The development in the WRSP Area shall minimize loss of agricultural land. This shall be achieved through off-site acquisition of conservation easement(s) prior to approval of the 500th building permit.	The applicants shall be required to acquire off-site conservation easements to be maintained in perpetuity consistent with any applicable Clean Water Act 404 permits or agreements with the California Department of Fish and Game.	The conservation easement(s) shall be acquired prior to approval of the 500th building permit a Signature property.	The Public Works Director, the Planning Director, and the Community Development Department Environmental Coordinator shall ensure that the conservation easement is in place prior to proceeding past approval of the 500th building permit.
4.2 Population, Employment and Housing				
Impact 4.2-2: Provision of affordable housing	**Remainder Area** ***MM 4.2-1****:* Affordable Housing Program Specific Plans and/or other development proposals for the Remainder Area shall demonstrate that 10 percent of the exact dwelling unit counts would be reserved for very low–, low-, and middle-income levels. Consistent with City policy, at the time specific development is proposed within the Remainder Area, a minimum of 10 percent of the exact dwelling unit counts shall be reserved for very low–, low-, and middle-income levels.	Prior to annexation of the Remainder Area, Specific Plans and corresponding Development Agreements will be required that include affordable units consistent with City policy.	Prior to annexation	Planning Director and Economic and Community Services Director shall review specific plans and development agreements to ensure consistency with the City's affordable housing goals.
Impact 4.2-3: Displacement of existing housing.	**WRSP Area** ***MM 4.2-2****:* Relocation Assistance The City shall provide relocation assistance and make all of the payments required by Chapter 16 (Commencing with Section 7260) of Division 7 of Title 1 of the Government Code, including the making of such payments financed by the federal government.	The City shall provide relocation assistance concurrent with property acquisition.	Prior to construction	The City Attorney shall ensure that relocation assistance and payments are made in compliance with Federal and state law.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	Remainder Area Refer to **MM 4.2-2**: *Relocation Assistance*			
	4.3 Transportation and Circulation			
Impact 4.3-1: Increased traffic on City of Roseville roadways.	**SOI Area** The mitigation measure(s) identified for Impact 4.3-1 for the WRSP Area and/or the Remainder Area would also apply to development of the entire SOI Area.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.3-1, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.3-1, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.3-1, which is provided below.
	WRSP Area ***MM 4.3-2(a–d)***: Fair Share Policies for Improvements in the CIP at the Following City Intersections ▪ Diamond Creek/Blue Oaks ▪ Fiddyment Road/Baseline Road ▪ Foothills Boulevard/Blue Oaks Boulevard ▪ Fiddyment Road/Pleasant Grove Boulevard As new Specific Plans and/or development proposals are approved in the WRSP Area, the CIP shall be revised to include the following improvements to be funded by new development through payment of traffic mitigation fees. (a) Intersection of Diamond Creek/Blue Oaks Boulevard: Add 3rd eastbound and westbound through lanes to the intersection of Diamond Creek and Blue Oaks Boulevard (requires widening of Blue Oaks Boulevard from Woodcreek Oaks to west of Diamond Creek). This mitigation measure would result in LOS C. (b) Intersection of Fiddyment Road/Baseline Road: Add 2nd northbound left-turn lane, add 2nd southbound left-turn lane, to the intersection of Fiddyment Road and Baseline Road. This mitigation measure would result in LOS D. (c) Intersection of Foothills/Blue Oaks Boulevard: Add 3rd southbound through lane, add 3rd northbound left-turn lane and add 4th westbound through lane to the intersection of Foothills Boulevard and Blue Oaks Boulevard. This mitigation measure would result in LOS D. (d) Intersection of Fiddyment Road/Pleasant Grove Boulevard: Add 3rd southbound and 3rd northbound through lanes. This mitigation measure would result in LOS C.	The Development Agreements between Applicants and the City require the city to update the CIP and the Applicants to pay fair share fees.	In accordance with Development Agreements, the traffic mitigation fees shall be paid on a pro-rata basis prior to the issuance of any building permit.	City of Roseville Public Works Director shall ensure that the mitigation measures are implemented. The Public Works Director will oversee the CIP and ensure that improvements are implemented in a timely fashion.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	The WRSP would develop over a period of years. Therefore the impacts to these intersections would occur over a long period of time. As with other improvements in the 2020 CIP, the City will monitor traffic conditions and determine when specific improvements are needed. The City of Roseville's traffic impact fees shall be revised to include the WRSP. The applicants shall contribute the WRSP's fair share of the cost of these improvements through payment of the updated traffic impact fees at the time of building permits. Construction of the above intersection improvements would result in temporary increases in construction noise and dust, as well as the potential loss of or degradation to biological and cultural resources, and increased urban runoff. The exact impacts cannot be determined at this time because the roadway design has not been determined. When the City updates the CIP to include these improvements, the area of disturbance will be evaluated for such impacts, as required by CEQA. In addition, impacts on air quality, noise and water quality will need to be evaluated. Because the intersections to be improved are within the City, the potential for impacts on biological and cultural resources is likely to be insubstantial, and could be mitigated with measures similar to those identified in this EIR. Impacts related to erosion, noise and air emissions would be temporary, and typically are mitigable during construction.	The Community Development Department Environmental Coordinator would ensure that appropriate environmental review of any City roadway projects occurs prior to construction. The Environmental Utilities National Pollution Discharge Elimination (NPDES) Coordinator shall ensure that measures are implemented to reduce impacts.	Prior to approval of updated CIP.	Public Works Director, Environmental Coordinator and NPDES Coordinator will ensure that measures are incorporated, and improvements implemented
	Remainder Area ***MM 4.3-1(a–f)***: Pay Fair Share of Improvements in the CIP Including Improvements to the Following City Intersections ▪ Diamond Creek/Blue Oaks Boulevard ▪ Fiddyment Road/Baseline Road ▪ Foothills Boulevard/Blue Oaks Boulevard ▪ Woodcreek Oaks/Blue Oaks Boulevard ▪ Sierra Gardens/Douglas Road ▪ Watt Avenue/Baseline Road The following roadway improvements would be necessary to achieve acceptable service levels under the 2020 Plus SOI Amendment scenario. (a) Intersection of Diamond Creek/Blue Oaks Boulevard: Add 3rd eastbound and westbound through lanes to the intersection of Diamond Creek and Blue Oaks Boulevard (requires widening of Blue Oaks Boulevard from Woodcreek Oaks to west of Diamond Creek) and restripe southbound approach to one southbound left/through/right lane and one southbound left-only lane. This mitigation measure would result in LOS C. (b) Intersection of Fiddyment Road/Baseline Road: Add 2nd southbound left-turn lane and 2nd northbound left-turn lane, add 3rd southbound through lane and add 3rd northbound through lane to the intersection of Fiddyment Road and Baseline Road. This mitigation measure would result in LOS D. (c) Intersection of Foothills Boulevard/Blue Oaks Boulevard: Add 3rd	Prior to annexation within the Remainder Area Specific Plans and environmental review will be required to more specifically identify potential transportation impacts and improvements. The applicants shall enter into agreement(s) with the City of Roseville to make a fair share contribution towards the preparation of required improvements. Documentation of the agreement shall be submitted to the Public Works Director prior to issuance of final occupancy clearance.	Prior to annexation. Payment of fees in accordance with agreement(s). The traffic mitigation fees shall be paid on a pro-rata basis prior to issuance of any building permits.	The Planning Director and Public Works Director will ensure that specific plans are prepared that adequately identify needed transportation infrastructure to serve the Remainder Area. The Public Works Director shall ensure that any projects within the Remainder Area fund their portion of the improvements.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	southbound through, add 3rd northbound left-turn lane, and 4th westbound through lane to the intersection of Foothills Boulevard and Blue Oaks Boulevard. This mitigation measure would result in LOS D. (d) Intersection of Woodcreek Oaks/Blue Oaks Boulevard: Add 2nd northbound left-turn lane and 2nd southbound left-turn lane to the intersection of Woodcreek Oaks and Blue Oaks Boulevard. This mitigation measure would result in LOS C (e) Intersection of Sierra Gardens/Douglas Boulevard: Add westbound right turn only lane to the intersection of Sierra Gardens and Douglas Boulevard. This mitigation measure would result in LOS C. (f) Intersection of Watt Avenue/Baseline Road: Add 3rd northbound and add 3rd southbound through lane. This mitigation measure would result in LOS D. The SOI Amendment Area would develop over a period of years. Therefore, the impacts on these intersections would occur over a period of time. As with other improvements in the 2020 CIP, the City will monitor traffic conditions and determine when specific improvements are needed. The City of Roseville's traffic impact fees should be revised to include the SOI Amendment Area. Specific Plans and/or development proposals shall provide for fair share contributions of the cost of the improvement through the updated traffic impact fees. As discussed above, construction of intersection improvements could have impacts on biological and cultural resources, air quality, water quality, and noise levels. These impacts will be evaluated as part of the CIP update to incorporate the adopted mitigation. Such impacts are not anticipated to be substantial as they would occur in an urban area and/or would be temporary.			
Impact 4.3-3: Increased traffic on Placer County roadways.	**SOI Area** The mitigation measure(s) identified for Impact 4.3-3 for the WRSP Area and/or the Remainder Area would also apply to development of the entire SOI Area.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.3-3, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.3-3, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.3-3, which is provided below.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	WRSP Area ***MM 4.3-3(a–c)***: Construct Identified Roadway Improvements on Placer County Roadways and Limit Access to Phillip Road (a) Walerga Road: Widen Walerga Road between Baseline Road and PFE road from four to six lanes. Based on Placer County's roadway segment capacities, this mitigation measure would result in LOS C or better conditions. (b) Watt Avenue: Widen Watt Avenue between Baseline Road and PFE Road from four to six lanes. Based on Placer County's roadway segment capacities, this mitigation measure would result in LOS C or better conditions on this segment of Watt Avenue. (c) Phillip Road: Blue Oaks Boulevard shall not be opened to through traffic between Realigned Phillip Road and West Side Drive until a north/south connection is constructed from West Side Drive to Baseline Road. By limiting through traffic on Blue Oaks Boulevard from Phillip Road to West Side Drive until an additional north/south connection is available, the City will ensure that volumes on the portion of Phillip Road in the County will meet County standards for rural roadways. Implementation of MM 4.3-3 (a) through (c) would reduce these impacts to a **less-than-significant level;** however, these improvements lie outside the jurisdiction of the City of Roseville. Placer County can implement the suggested mitigation measures, but may choose not to. If the improvements are not made, levels of service would remain as shown in Table 4.3-21 (page 4.3-68 of the Final EIR) and Table 4.3-22 (page 4.3-85 of the Final EIR). The City of Roseville will monitor traffic volumes and coordinate with the County to consider and implement additional operational measures/restrictions if needed as the plan develops.	The City and Placer County shall implement a regional traffic fee to fund the identified improvements. Applicants within the WRSP will be required to contribute to the regional fee to fund a portion of the improvements per the Development Agreements. Placer County will be responsible for overseeing the improvements.	Payment of fees by the applicants at the time of building permits issuance.	Placer County Public Works Director and the City Public Works Director will ensure that the regional traffic fee program is implemented, the fees collected, and the improvements implemented.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	Remainder Area ***MM 4.3-4(a–g)***: Construct Identified Improvements on Placer County Roadways Placer County should construct the following roadway improvements: (a) Fiddyment Road: Widen Fiddyment Road between the North Roseville City limit and Sunset Boulevard from two to four lanes. Based on Placer County's roadway segment capacities, this mitigation measure would result in LOS A. (b) Walerga Road: Widen Walerga Road between Baseline Road and PFE road from four to six lanes. Based on Placer County's roadway segment capacities, this mitigation measure would result in LOS C or better conditions. (c) Watt Avenue: Widen Watt Avenue between Baseline Road and PFE Road from four to six lanes. Based on Placer County's roadway segment capacities, this mitigation measure would result in LOS C or better conditions on this segment of Watt Avenue. (d) Phillip Road: Improve Phillip Road outside of the WRSP to Placer County Rural Collection Standards. This includes wider cross-section and potentially paved shoulders. (e) Intersection of Watt Avenue/PFE Road: Widen Watt Avenue to six lanes through the intersection, which would provide LOS C at this intersection. (f) Intersection of Watt Avenue/Baseline Road: Add 3rd northbound and add 3rd southbound lane. This would result in LOS D at this intersection or better. (g) Intersection of Pleasant Grove Drive/Baseline Road/Riego Road: Add a northbound right-turn lane. This would result in LOS D. Implementation of these measures would reduce these impacts to a less-than-significant level; however, the specified improvements lie outside the jurisdiction of the City of Roseville. Placer County can implement these suggested mitigation measures, but may choose not to. If the improvements are not made, levels of service would remain as shown in Table 4.3-21 (page 4.3-68 of the Final EIR) and Table 4.3-22 (page 4.3-85 of the Final EIR).	Prior to annexation within the Remainder Area Specific Plans,, development of Specific Plan policies will be required. The City and Placer County shall implement a regional traffic fee to fund the identified improvements. Applicants within the Remainder Area will be required to pay the regional traffic fee prior to issuance of building permits to fund a portion of the improvements.	Prior to annexation. Payment of fees by the applicants at the time of building permits issuance.	Placer County Public Works Director and the City Public Works Director will ensure that the regional traffic fee program is implemented, the fees collected, and the improvements implemented.
Impact 4.3-7: Increased demand for bicycle facilities.	**SOI Area** The mitigation measure(s) identified for Impact 4.3-7 for the WRSP Area and/or the Remainder Area would also apply to development of the entire SOI Area.	A The applicant for the Remainder Area shall prepare and submit a Bicycle Master Plan shall be submitted with building plans.	Prior to construction of bike trails.	Transit and Bikeways Division Manager would review Bicycle Master Plan and ensure that the building plans include adequate bikeway facilities.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	Remainder Area ***MM 4.3-7***: Provide Appropriate Bicycle Network With Future Specific Plan Submittal Any Specific Plan and/or development proposals in the Remainder Area shall include a bicycle circulation plan that identifies Class I and II bicycle paths throughout the proposal area, and connects those bike paths to the City's network so that bicyclists can safely travel from home to schools, parks, open space areas, and employment areas. Class I bike paths shall connect with Baseline Road and the Class I bike paths in the WRSP.	Prior to annexation within the Remainder Area, the applicant shall be required to prepare and submit Specific Plans and environmental review which specifically identify potential bicycle impacts and improvements.	Prior to construction.	Transit and Bikeways Division Manager would ensure that the Specific Plans include adequate bikeway facilities.
Impact 4.3-8: Transit access and circulation.	**SOI Area** The mitigation measure(s) identified for Impact 4.3-8 for the WRSP Area and/or the Remainder Area would also apply to development of the entire SOI Area.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.3-8, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.3-8, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.3-8, which is provided below.
	WRSP Area ***MM 4.3-8***: Pay Fair Share of Additional Transit Services The WRSP shall contribute their fair share towards the capital and operating costs for expanded transit services to the WRSP area. The amount of transit services needed would be identified in an updated Short Range Transit Plan and an updated Long Range Transit Master Plan.	The Applicant shall make a fair share contribution towards the expansion of transit services in accordance with the Development Agreements.	Agreements shall be executed prior to first building permit with timing of contributions identified.	City of Roseville City Attorney shall ensure that the agreements are implemented.
	Remainder Area ***MM 4.3-9***: Transit Services Policies Any Specific Plan and/or development proposals in the Remainder Area shall contribute their fair share towards the capital and operating costs for expanded transit services to the project area. The amount of transit services needed would be identified in an updated Short Range Transit Plan and an updated Long Range Transit Master Plan prepared for projects in the Remainder Area.	The applicant shall enter into an agreement with the City of Roseville to make a fair share contribution towards the expansion of transit services. Agreements shall be executed prior to issuance of the first building permit with agreements identifying timing of contributions.	Agreements shall be executed prior to first building permit with timing of contributions identified.	City of Roseville City Attorney shall ensure that the agreements are implemented.
4.4 Air Quality				
Impact 4.4-1: Fugitive dust and PM_{10} from grading and trenching activities.	**SOI Area** The mitigation measure(s) identified for Impact 4.4-1 for the WRSP Area and/or the Remainder Area would also apply to development of the entire SOI Area.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.4-1, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.4-1, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.4-1, which is provided below.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	WRSP Area ***MM 4.4-1***: Dust Control After review and approval by the PCAPCD, the developer, if required, shall apply approved chemical soil stabilizers according to manufacturers specifications, to all inactive construction areas (previously graded areas which remain inactive for 96 hours). Reduce traffic speeds on all unpaved surfaces to 15 miles per hour or less. Creation of a dust control plan. No open burning of vegetation during project construction. Reestablishment of ground cover as soon as possible after construction. Suspension of grading activities when winds exceed 25 mph. These mitigation measures could result in impacts to water quality. Please refer to the Best Management Practices discussed in Section 4.8, Hydrology, Water Quality and Groundwater, for a description of how impacts on water quality will be minimized through erosion control measures.	The applicants shall submit construction management plans as part of the Grading Permit application. The Public Works Director shall review grading plans for inclusion of these measures prior to issuance of grading permits. The City Code Enforcement Officer shall respond to complaints.	Prior to issuance of Grading Permits.	Director of Public Works shall ensure that dust control measures are implemented.
	Remainder Area ***MM 4.4-2***: Dust Control Policies Specific plans and/or other development proposals for the Remainder Area shall require dust control measures that are adequate to reduce PM_{10} emissions below PCAPCD thresholds. Such measures could include hydro seeding, covering trucks, reducing traffic speed, prohibiting open burning, or other effective measures.	The construction management plan shall be included with grading permits. The Public Works Director shall review plans for inclusion of these measures prior to issuance of grading permits. The City Code Enforcement Officer shall respond to complaints.	Prior to issuance of grading permits.	Director of Public Works shall ensure that dust control measures are implemented.
Impact 4.4-2: Construction emissions.	**SOI Area** The mitigation measure(s) identified for Impact 4.4-2 for the WRSP Area and/or the Remainder Area would also apply to development of the entire SOI Area.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.4-2, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.4-2, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.4-2, which is provided below.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	WRSP Area ***MM 4.4-3***: Reduction of Construction Emissions The prime contractor shall submit to the PCAPCD a comprehensive inventory (i.e., make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 or more hours for the construction project. District personnel, with assistance from the California Air Resources Board, will conduct initial Visible Emission Evaluations of all heavy-duty equipment on the inventory list. ▪ An enforcement plan shall be established by the contractor in conjunction with the air district to weekly evaluate project-related on-and-off- road heavy-duty vehicle engine emission opacities, using standards as defined in California Code of Regulations, Title 13, Sections 2180–2194. An Environmental Coordinator, CARB-certified to perform Visible Emissions Evaluations (VEE), shall routinely evaluate project related off-road and heavy-duty on-road equipment emissions for compliance with this requirement. Operators of vehicles and equipment found to exceed opacity limits will be notified and the equipment must be repaired within 72 hours. ▪ Contractors shall provide a plan for approval by the PCAPCD demonstrating that the heavy-duty (>50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project-wide fleet average 30 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. ▪ Minimize idling time to 10 minutes. ▪ Use low sulfur fuel for stationary construction equipment, if feasible. ▪ Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators. ▪ Use low emission on-site stationary equipment.	The applicants shall provide this information as general notes on the grading plans. The Public Works Director shall review plans for inclusion of this measure prior to issuance of building permits. The City Code Enforcement Officer shall respond to complaints.	Prior to issuance of grading permits.	The Public Works Director and Code Enforcement Officer shall ensure that the dust control measures are implemented.
	Remainder Area ***MM 4.4-4***: Reduction of Construction Emissions Specific plans and/or development proposals for the Remainder Area shall require emission control measures during construction. Such measures, which shall be developed in consultation with the PCAPCD, may include use of heavy-duty off-road equipment included in the inventory powered by CARB certified off-road engines, or other measures to reduce particulate matter and nitrogen oxide emissions through the use of emulsified diesel fuel and/or particulate matter traps.	The construction management plan shall be included with building plans. The Public Works Director shall review plans for inclusion of these measures prior to issuance of grading and building permits. The City Code Enforcement Officer shall respond to complaints.	Include in Specific Plan.	The Public Works Director and Code Enforcement Officer shall ensure that the dust control measures are implemented.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.4-3: Operational emissions.	**SOI Area** The mitigation measure(s) identified for Impact 4.4-3 for the WRSP Area and/or the Remainder Area would also apply to development of the entire SOI Area.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.4-3, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.4-3, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.4-3, which is provided below.
	WRSP Area ***MM 4.4-5***: Reduction of Operational Emissions Each developer will need to reach an agreement with the Placer Air Quality District concurrent with any subdivision or design review permit on air quality mitigation measures. Measures that could be implemented in order to reduce vehicle emissions and other operational emissions could include the followingFollowing receipt of an application for a Tentative Map (excluding the large lot subdivision map) or Design Review Permit, the City will forward an early consultation notice to the Placer County Air Quality District (PCAQD). Where the PCAQD provides comments on a specific development proposal, the City shall work with PCAQD and the developer to incorporate any measures recommended by the PCAQD into the project. Where the PCAQD does not provide comment on a specific development proposal, the City shall incorporate measures that reduce vehicle emissions and operational emissions from the proposed development. These measures will be implemented through project design, conditions of approval, noticing and disclosure statements, or through the City's plan check and inspection processes. The following is a listing of potential measures that could be implemented for the purpose of reducing vehicle and operational emissions: <u>Measures Applied to Tentative Maps and Design Review Permits</u> ▪ Provide tree plantings that meet or exceed the requirements of the City's Community Design Guidelines to provide shading of buildings and parking lots. (Design and COA—Planning) ▪ Landscape with native drought-resistant plants (ground covers, shrubs, and trees) with particular consideration of plantings that are not reliant on gas powered landscape maintenance equipment. (Design and COA—Planning) ▪ Require all flat roofs on non-residential structures to have a white or silver cap sheet to reduce energy demand. (COA—Planning) ▪ Provide conductive/inductive electric vehicle charging stations and signage prohibiting parking for non-electric vehicles within designated spaces within non-residential developments. (Design and COA—Planning) ▪ Configure parking to minimize traffic interference. (Design and COA—Planning) ▪ Provide vanpool parking only spaces to accommodate vanpools in	Conditions imposed on each small lot tentative map and/or design review permit.	At the time of approval of final map.	Refer to responsible entity following each bulleted item in the text of the mitigation measure.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	employment areas (e.g., community commercial, business-professional, and industrial uses). (Design and COA—Planning) ▪ Provide preferential parking for carpools and vanpools in employment areas (e.g., community commercial, business-professional, and industrial areas). (Design and COA—Planning) ▪ All truck loading and unloading docks shall be equipped with one 110/208-volt power outlet for every two-dock doors. Signs shall be posted stating "Diesel trucks are prohibited from idling more than five minutes and trucks requiring auxiliary power shall connect to the 110/208-volt outlets to run auxiliary equipment." (Design and COA—Planning) ▪ Provide all day vehicle parking lots and secured bicycle storage near rail stations, transit stops, and freeway access points. (Design and COA—Planning) ▪ Develop the Class I, II, and III bikeway system within the plan as identified within the WRSP. (Design and COA—Planning, Public Works) ▪ Develop the Village Center consistent with the WRSP policies that encourage pedestrian travel over use of the automobile. (Design and COA—Planning, Public Works) ▪ Design streets to maximize pedestrian access to transit stops. (Design and COA—Planning, Public Works) ▪ Require site design to maximize access to transit lines, to accommodate bus travel, and to provide lighted shelters at transit access points. (Design and COA—Planning, Public Works) ▪ Develop the plan consistent with the higher residential densities provided around the Village Center, transportation nodes, and transit corridors. (Design and COA—Planning, Public Works) ▪ Wood burning or pellet appliances shall not be permitted in multi-family developments. Only natural gas or propane fired fireplace appliances are permitted. (COA, PC—Building) <u>Measures for Detached Single-Family Residences</u> ▪ Require electrical outlets to be installed on the exterior walls of both the front and back of residences or all commercial buildings to promote the use of electric landscape maintenance equipment. (COA, BP, PC—Planning, Building) ▪ Require installation of a gas outlet in the rear of residential buildings for use of outdoor cooking appliances, such as gas burning barbeques. (BP-PC—Building) ▪ Require installation of gas outlets with ceramic logs in any proposed fireplaces, including outdoor recreational fireplaces or pits. (BP-PC—Building) ▪ Require installation of low nitrogen oxide (NO_x), hot water heaters. (beyond District Rule 246 requirements). (BP-PC—Building) ▪ Require HVAC units be equipped with PremAir catalyst system (or			

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	another similar system) if available and economically feasible. The PremAir system is considered feasible if the additional cost is less than 10 percent of the base HVAC unit cost. (BP-PC—Building) ▪ Provide notice to homebuyers of the option to install electric vehicle charging raceways in residential garages. (NDS—Building) ▪ Provide notice to homebuyers of incentive and rebate programs available through Roseville Electric or other providers that encourage the purchase of electric landscape maintenance equipment. (NDS—Building) ▪ Require wood burning devices to meet U.S. EPA Phase II certification. (BP-PC—Building) In lieu of each individual project implementing their own off-site mitigation program, an applicant may choose to pay an equivalent amount of money into the District's Air Quality Mitigation Fund. The District provides monetary incentives to sources of air pollutant emissions that are not required by law to reduce their emissions. Therefore, the emission reductions are real, quantifiable, and implement provisions of the 1994 State Implementation Plan. The off-site mitigation program has been implemented by a number of projects in Placer County. To the extent feasible, the implementation of any programs resulting from the WRSP in lieu of fees should be used in close proximity to the WRSP and the City of Roseville. COA—Conditions of Approval BP—Building Permit PC—Plan Check NDS—Noticing and Disclosure Statements			
	Remainder Area ***MM 4.4-6***: Operational Emissions Policies Specific plans and/or development proposals for the Remainder Area shall include measures to reduce operational emissions. Such measures may include, but would not be limited to transit and pedestrian-oriented facilities (e.g., park and ride lots, bus stops), bike trails and facilities, energy-saving measures in buildings, as well as the measures described in MM 4.4-5, above. Appropriate measures shall be selected in consultation with the City and PCAPCD.	Applicants within the Remainder Area would be required to submit proposed air quality mitigation measures to the Placer County Air Pollution Control District during the design review process.	Prior to issuance of a building permit.	The applicants shall be responsible for submitting specific plans prior to annexation. The Planning Director, Environmental Coordinator, and Public Works Director shall ensure that air quality measures are included and implemented as conditions of approval at the design review stage.
Impact 4.4-4: Exposure of sensitive receptors to unacceptable TAC levels.	**SOI Area** The mitigation measure(s) identified for Impact 4.4-4 for the WRSP Area and/or the Remainder Area would also apply to development of the entire SOI Area.	Refer to the discussion for the WRSP Area for Impact 4.4-4, which is provided below.	Refer to the discussion for the WRSP Area for Impact 4.4-4, which is provided below.	Refer to the discussion for the WRSP Area for Impact 4.4-4, which is provided below.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	WRSP Area ***MM 4.4-7***: Maintain TAC Inventory and CAP Industrial users proposed within the WRSP will be required to submit a Permit to Operate to the PCAPCD. The District will review the use and if a proposed industrial project would cause the combined emissions of TACs to exceed the risk standard of 10 in one million at residences or public uses (e.g., schools, park), additional modeling and/or environmental review would be required to demonstrate emissions from that use or other uses in the WRSP Area would be reduced so that the standard is not exceeded. For example, an applicant could propose to retrofit an existing operation in order to lower the total TAC emissions in the WRSP.	The applicant shall submit a Permit to Operate to the Placer County Air Pollution Control District during the design review process.	Prior to issuance of a certificate of occupancy.	The Placer County Air Pollution Control District shall review proposals and notify the Planning Director should a proposed use exceed the TAC threshold. The Planning Director and Environmental Coordinator shall determine if additional environmental review is required prior to approval of the use and ensure that measures are implemented to reduce exposure to TACs.
	Remainder Area Refer to **MM 4.4-7**: *Maintain TAC Inventory and CAP* above	Refer to the discussion for the WRSP Area for Impact 4.4-4, which is provided above.	Refer to the discussion for the WRSP Area for Impact 4.4-4, which is provided above.	Refer to the discussion for the WRSP Area for Impact 4.4-4, which is provided above.
4.5 Noise				
Impact 4.5-1: Short-term noise generated by construction activity.	**SOI Area** The mitigation measure(s) identified for Impact 4.5-1 for the WRSP Area and/or the Remainder Area would also apply to development of the entire SOI Area.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.5-1, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.5-1, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.5-1, which is provided below.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	WRSP Area ***MM 4.5-1***: Construction noise reduction As discussed under Impact 4.5-1, compliance with the City's Noise Ordinance would result in a less-than-significant impact for construction noise. However, the following measures are recommended to further reduce the effects of construction noise on residents. Equipment warm-up areas, water tanks, and equipment storage areas shall be located a minimum of 150 feet from occupied residences, where feasible. Flexible sound control curtains shall be placed around drilling apparatus and drill rigs, if sensitive receptors are located nearby. These measures would reduce the amount of noise at residences by placing stationary sources of noise far enough from residences that the noise generated would not be disturbing, particularly during the daytime, when construction activities would occur. In addition, they would assist in reducing the potential for noise disturbances and potential noise-related complaints.	The applicants shall be required to include these measures on their building plans. The Chief Building Inspector shall review the plans for inclusion of these measures prior to issuance of building permits. The Code Enforcement Inspector shall respond to complaints.	Prior to approval of building permits.	The Chief Building Inspector shall ensure that appropriate noise control measures are reflected in the building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's Noise Ordinance regulations.
	Remainder Area ***MM 4.5-2***: Construction noise policies Specific Plans and/or other development proposals for the Remainder Area shall include policies and/or conditions that require equipment warm-up areas, water tanks and equipment storage areas be located a minimum of 150 feet from occupied residences, if feasible, and that noise measures (such as sound control curtains) be used in well-drilling.	These measures shall be included on building plans. The Chief Building Inspector shall review plans for inclusion of these measures prior to issuance of building permits. The Code Enforcement Inspector shall respond to complaints.	Prior to approval of building permits.	The Chief Building Inspector shall ensure that appropriate noise control measures are reflected in the building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's Noise Ordinance regulations.
Impact 4.5-2: Commercial noise sources.	**SOI Area** The mitigation measure(s) identified for Impact 4.5-2 for the WRSP Area and/or the Remainder Area would also apply to development of the entire SOI Area.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.5-2, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.5-2, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.5-2, which is provided below.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	WRSP Area ***MM 4.5-3***: Commercial noise control For all commercial uses within 150 feet of residential uses, implement the following or equally effective measures: (a) For commercial loading docks and on-site truck circulation areas that are planned to be within 150 feet of sensitive receptors (including backyards), the following measures shall be implemented: (1) Loading docks and on-site truck circulation routes shall be designed to ensure that noise levels do not exceed 70 dB L_{max} or 50 dB hourly L_{eq} at the nearest residence. An acoustic analysis shall demonstrate that the loading area design, including any noise attenuation features (e.g., covering, sound walls, orientation) would be adequate to achieve this standard; and, (2) Deliveries shall generally be limited to the hours between 7:00 A.M. and 10:00 P.M. (b) For all commercial buildings, roof-top HVAC shall be oriented away from residential areas and systems shall not produce noise levels that exceed 50 dB at a distance of 25 feet. In addition, roof-top parapets shall block line-of-sight from noise-sensitive uses to HVAC equipment. (c) Setbacks or enhanced barriers (e.g., 8 feet tall) as needed to achieve City standards. An acoustical analysis shall be conducted to demonstrate that City noise standards would be achieved by these measures. Additional measures shall be implemented, if needed, to meet the standards.	The applicants shall submit site-specific acoustical analyses to the Chief Building Inspector for review. This condition shall be included in the use permit.	Prior to approval of Building Permits.	The Chief Building Inspector shall ensure that appropriate noise control measures are reflected in the building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's Noise Ordinance regulations.
	Remainder Area ***MM 4.5-4***: Commercial noise policies Specific Plans and/or other development proposals for the Remainder Area shall include policies and/or conditions that require that commercial areas located adjacent to residential area are designed to meet City noise standards through the use of setbacks, barriers, and other measures. Particular attention shall be given to loading docks, on-site truck circulation, and HVAC equipment. To the extent feasible, specific plans and/or development proposals for the remainder area shall locate commercial uses at least 1,500 feet from residences.	The applicants shall include the appropriate policies and/or conditions in the Specific Plan to ensure operational noise levels meet City noise standards. Prior to approval of Development Permits, site-specific acoustical analyses shall be submitted to the Chief Building Inspector for review.	Specific Plan required prior to annexation. In addition, site-specific noise analyses required prior to approval of development permits.	The Chief Building Inspector shall ensure that appropriate noise control measures are reflected in the building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's Noise Ordinance regulations.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.5-3: Industrial noise.	**SOI Area** ***MM 4.5-5***: Industrial facilities noise controls Prior to approval of a building permit, any proposal for an industrial or light industrial use shall demonstrate through an acoustical analysis that noise levels at the nearest sensitive receptor will not exceed City standards. The noise standards may be achieved through a combination of setbacks, soundwalls or other barriers, and other noise control techniques such as silencers on exhaust stacks and ventilation openings, enclosures around noisy equipment, and orienting noisy equipment or processing facilities away from noise-sensitive receivers.	Applicants shall submit site-specific acoustical analyses to the Chief Building Inspector for review.	Prior to approval of Building Permits.	The Chief Building Inspector shall ensure that appropriate noise control measures are reflected in the building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's Noise Ordinance regulations.
	WRSP Area Refer to **MM 4.5-5**: *Industrial facilities noise controls*			
	Remainder Area None required.	N/A	N/A	N/A
Impact 4.5-4: Noise from school related activities.	**SOI Area** None required.	N/A	N/A	N/A
	WRSP Area None required.	N/A	N/A	N/A
	Remainder Area None required.	N/A	N/A	N/A
Impact 4.5-5: Citywide park noise.	**SOI Area** The mitigation measure(s) identified for Impact 4.5-5 for the WRSP Area and/or the Remainder Area would also apply to development of the entire SOI Area.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.5-5, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.5-5, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.5-5, which is provided below.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	WRSP Area ***MM 4.5-6***: Attenuate park noise (a) The proposed soccer fields located in the northern portion of the proposed regional sports complex park shall be enclosed or shielded through the use of berms or barriers. A minimum of an 8 dB to 10 dB reduction in noise can be achieved through the site design or through the use of walls and berms. This type of reduction of noise levels is expected to result in compliance with the City of Roseville daytime noise level standards. In addition, the City of Roseville Parks Department allows parks to be open until 11:00 P.M. (b) The Garden Bandstand shall be shielded from residential uses by berms or other barriers, or amplification at musical events shall be limited to maximum noise levels of 80 dB L_{max} at the property line of the property where the event is held. Amplified events shall be prohibited if it cannot be demonstrated that this standard can be met. In addition, amplified music shall be allowed only between the hours of 8:00 A.M. and 10:30 P.M. on Sunday through Thursday and between the hours of 8:00 A.M. and 11:00 P.M. on Fridays and Saturdays.	Acoustical analyses shall be submitted to the Community Development Department Environmental Coordinator for review at the time specific parks are proposed to identify appropriate site-specific noise attenuation measures. The Parks Director shall ensure that the noise control measures are implemented in the park design.	Prior to issuance of building permits.	The Parks Director shall ensure that appropriate noise control measures are reflected in the building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's Noise Ordinance regulations.
	Remainder Area ***MM 4.5-7***: Park noise policies Specific Plans and/or other development proposals for the Remainder Area shall include policies and/or conditions that ensure that park noise meets City standards, as demonstrated by appropriate acoustical analyses.	Prior to annexation within the Remainder Area Specific Plans, development of Specific Plan policies and Design Guidelines will be required.	Prior to annexation.	Applicants within the Remainder Area will be responsible for preparation of specific plans, design guidelines, and environmental review. The Planning Director will ensure the specific plans and design guidelines adequately address noise issues.City Planning and/or Building Agency
Impact 4.5-8: On-site traffic noise.	**SOI Area** The mitigation measure(s) identified for Impact 4.5-8 for the WRSP Area and/or the Remainder Area would also apply to development of the entire SOI Area.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.5-8, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.5-8, which is provided below.	Refer to the discussion for the WRSP Area and Remainder Area for Impact 4.5-8, which is provided below.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	WRSP Area ***MM 4.5-8***: On-site traffic noise attenuation The project developer shall demonstrate through an acoustical study that residences along roadways will be subject to noise levels consistent with the City's standards. The standards could be achieved through a combination of setbacks, soundwalls or other barriers, building orientation or other measures. An acoustical analysis shall be required to demonstrate that these measures will result in acceptable noise levels.	Applicants shall submit site-specific acoustical analyses to the Chief Building Inspector for review.	Prior to approval of building permits.	The Chief Building Inspector shall ensure that appropriate noise control measures are reflected in the building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's Noise Ordinance regulations.
	Remainder Area ***MM 4.5-10***: On-site traffic noise policies Specific Plans and/or other development proposals for the Remainder Area shall include policies and/or conditions that require that residential development adjacent to roadways will be subject to traffic noise levels that fall within City standards. The standards could be achieved through a combination of setbacks, soundwalls or other barriers, building orientation or other measures. An acoustical analysis shall be required to demonstrate that these measures will result in acceptable noise levels.	Prior to annexation within the Remainder Area Specific Plans, development of Specific Plan policies and Design Guidelines will be required.	Prior to approval of an annexation.	Applicants within the Remainder Area will be responsible for preparation of specific plans, design guidelines, and environmental review. The Planning Director will ensure the specific plans and design guidelines adequately address noise issues.
4.7 Biological Resources				
Impact 4.7-1: Loss of federally protected wetlands and "other waters" of the United States.	**WRSP Area** ***MM 4.7-1***: Ensure no net loss of wetlands Consistent with the Clean Water Act, the WRSP shall achieve no net loss of wetlands. As used here, 'no net loss of wetlands" shall account for all wetlands impacted by the project, both directly (e.g., filled or drained) and indirectly (e.g., subjected to polluted and accelerated runoff, or damage caused by human or domestic animal access). No net loss may be achieved through on-site avoidance where practicable and desirable, on-site wetland construction where practicable and desirable, and/or off-site wetland construction, off-site wetland restoration, and off-site acquisition where approved by the permitting agencies. Restoration of wetland habitats is preferred to wetland creation because creation of wetlands introduces wetlands to an area historically upland in nature, whereas restoration re-establishes topographic and hydrologic conditions to a landscape that historically contained wetlands but has undergone land conversion. The benefit of the restoration approach, as opposed to wetland creation, is that because of the historic hydrologic footprint it is evident that the soils	The applicants shall obtain appropriate permits from the Corps and USFWS to ensure that there is no net loss of wetlands. The Applicants shall prepare annual reports on the status and success of mitigation and shall submit these responses to USFWS. The Applicants shall coordinate with USFWS to modify as necessary any mitigation plans in an effort to attain mitigation success.	Prior to issuance of grading permit.	The City's Environmental Coordinator shall ensure that onsite wetlands are preserved and maintained consistent with the Operations and Maintenance Plan.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	contain a restrictive layer which assists in the ponding of seasonal surface water. The Clean Water Act Section 404 permit process (including a Section 7 Consultation under the Federal Endangered Species Act) is the standard method for developing mitigation for projects that affect wetlands and vernal pool species such as special-status plants, vernal pool crustaceans, and western spadefoots. Through this process, project applicants will be required to acquire the necessary permits and approvals to implement their proposed project while remaining in compliance with the Clean Water Act and the Federal Endangered Species Act. Mitigation, as outlined below in Table 4.7-3 (page 4.7-65 of the Final EIR), would consist of a combination of the preservation of on-site vernal pool habitat and the acquisition of off-site property with existing vernal pool habitat for preservation. Additionally, mitigation shall include off-site creation and/or restoration of vernal pool habitat, and/or participation in a mitigation credit program from a wetlands mitigation bank approved by the Corps and the USFWS. These banks would collect a fee that is based upon the mitigation obligation of the client. That fee would then be used to create, enhance, or preserve vernal pool habitat at an established mitigation bank. The credits shall be in direct proportion to vernal pool losses on the property, as determined by a wetland or habitat delineation. The project applicants have identified appropriate off-site mitigation as shown in Figure 4.7-4 (page 4.7-35 of the Final EIR). These areas include restoration of 43.75 acres at Yankee Slough and East Sheridan in Southwestern Placer County. This restoration will be a component of the compensation required for impacts to on-site habitat within the WRSP. The restoration of vernal pools on the Yankee Slough property will not result in artificial habitat being created. Although degraded due to agricultural practices, the habitat can be mapped through the use of current aerial photos taken during the wet season, which assist in the identification of remnant pools. In addition, historical aerial photos taken of the site prior to the intensive agricultural practices show evidence of the hydrological footprint of the area and can be used as the baseline for the restoration effort. In the mitigation of vernal pools that would be filled or otherwise disturbed, the landowners shall use harvested inoculum (i.e., the top few inches of soil containing the seed bank and vernal pool crustacean cysts) from on-site vernal pools. Topsoil from vernal pools contains both the seed bank for the plant species that occur in that individual pool and the vernal pool crustacean cysts (eggs) for those species that occur there. Removal of topsoil from harvested vernal pools shall comply with the most recent Corps and USFWS guidelines at the time of construction, or consist of removal of the top 2 inches of soil, following by the next 4 inches of soil, and placement of these layers in constructed vernal pools in reverse order (e.g., first the 4 inches followed by the 2 inches) to approximately reconstruct the natural soil horizon. Following the filing by the project applicant of its Clean Water Act			

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	Section 404 application with the Corps, the Corps initiated its Section 7 (Endangered Species Act) consultation with the USFWS in November 2002. During this consultation process, the project applicant and the USFWS and the CDFG have focused on a number of alternative properties providing off-site mitigation for the wetland and Swainson's hawk habitat impacts resulting from the WRSP Area (refer to Figure 4.7-4 on page 4.7-35 of the Final EIR). As a result of this a Wetland Impact Mitigation Plan has been developed, to mitigate for the loss of wetland habitat, and identify proposed off-site mitigation efforts. The results of this Plan mandate that the applicant must obtain a California Department of Fish and Game 1603 Streambed Alteration Agreement and/or U.S. Army Corps of Engineers (Corps) Section 404 Permit prior to final approval of grading and site construction plans. Although only a small portion of the site is subject to Corps jurisdiction (e.g., water's of the U.S.), the potential direct indirect impacts to vernal pool and wetland habitat from grading necessitates the restriction of the issuance of any grading permit to after the completion of the 1603 and 404 permitting process. While the final conditions of the permits will be determined through coordination with these agencies, at a minimum the following actions shall be performed: (A) Impacted wetland habitat (including vernal pools) that cannot be avoided, shall be replaced per a mitigation plan approved by the Corps and CDFG. Acreages listed in Table 4.7-3 shall be adhered to, and supplemented if additional impacts occur (e.g., in the Improvement Areas) (B) Restoration shall be performed by a qualified wetland revegetation specialist and shall be conducted only on sites where soils, hydrology, and microclimate conditions are suitable for each wetland habitat type. First priority shall be given to areas that are adjacent to existing patches of native habitat, including the Yankee Slough. (C) A wetland and vernal pool restoration/revegetation plan shall be prepared by a qualified specialist to include all measures for the revegetation and maintenance of on and/or off-site habitat, wheather preserved or created. The plan shall include the following: (1) The details and procedures required to prepare the restoration site for construction or planting (i.e., grading, soil preparations, soil stocking, etc.), including the need for a supplemental irrigation system, if any. (2) The methods and procedures for the installation of the soil and plant materials. (3) Guidelines for the maintenance of the mitigation site(s) shall be developed during the establishment phase of the restoration areas. The maintenance program shall contain guidelines for the control of nonnative plant species, the maintenance of any irrigation system or hydrology (if necessary).			

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	(4) The restoration plan shall provide for monitoring, acceptable to the permitting State and federal agency(s), to evaluate the growth of the developing habitat and/or vegetation. Specific goals for the restored habitat shall be defined by quantitative and qualitative characteristics of similar habitats and plants (e.g., density, cover, species composition, structural development). The monitoring effort shall include an evaluation of not only the habitat installed, but the use of it by wildlife. Monitoring reports of the mitigation site shall be reviewed by the permitting State and federal agency(s). (5) Contingency plans and appropriate remedial measures shall also be outlined in the plan should the restoration efforts fail to meet designated success criteria and goals. Additionally, the CWA 404 application for this project includes measures designed to ensure the long-term viability of the preserved wetlands. These measures include creation of contiguous connections with off-site preserve areas, the installation of high quality fencing around open space preserve areas with signage describing the sensitivity of the habitat, and the implementation of an Operation and Management Plan with a financing mechanism to monitor the health of the preserve habitat, and to remediate any disturbance to the preserve. An annual report describing the monitoring activities and condition of the preserve will be prepared by the preserve steward and submitted to the resource agencies. As a result of the implementation of this plan, as outlined in Table 4.7-3, and associated measures detailed above, the project applicant would incur no further obligation for surveys, salvage notification, or seedbank salvage for areas covered by the Plan other than those surveys indicated under **MM 4.7-14** and **MM 4.7-15**.			

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	Remainder Area ***MM 4.7-2***: Wetlands protection policies Prior to the adoption of any Specific Plans and/or other development proposals for the Remainder Area wetland delineations shall be conducted, and, if wetlands are present, the project achieves no net loss of wetlands. As used here, 'no net loss of wetlands" shall account for all wetlands impacted by the project, both directly (e.g., filled or drained) and indirectly (e.g., subjected to polluted and accelerated runoff, or damage caused by human or domestic animal access). No net loss could be achieved through on-site avoidance where practicable and desirable, on-site wetland construction where practicable and desirable, and/or off-site wetland construction, or off-site wetland restoration, and off-site acquisition where approved by the permitting agencies. Where appropriate, the plans shall specify that special-status plant surveys be conducted for species that have a high probability to occur within areas of potential impacts (e.g., big-scale balsamroot and Hispid bird's beak), such that, if found, no net loss of special-status plants occur, and that landowners use harvested inoculum (i.e., the top few inches of soil containing the seed bank and vernal pool crustacean cysts) from on-site vernal pools in constructed wetlands. Additionally, if wetland habitat would be impacted methods listed to ensure no net loss of wetlands, as detailed in MM 4.7-1, would be applicable, and required.	Prior to annexation within the Remainder Area Specific Plans, development of Specific Plan policies and Design Guidelines will be required. The applicants shall obtain appropriate permits from the Corps and USFWS to ensure that there is no net loss of wetlands. The applicants shall prepare annual reports on the status and success of mitigation and shall submit these reports to USFWS. The applicants shall coordinate with USFWS to modify as necessary any mitigation plans in an effort to attain mitigation success.	Prior to issuance of grading permit.	Applicants within the Remainder Area will be responsible for preparation of specific plans, design guidelines, and environmental review. The Planning Director will ensure the specific plans and design guidelines adequately address vegetation and wildlife issues. The City's Environmental Coordinator as preserve manager shall ensure that onsite wetlands are preserved and maintained consistent with the Operations and Maintenance Plan.
Impact 4.7-2: Loss of federally listed vernal pool crustaceans and their habitat.	**WRSP Area** Refer to **MM 4.7-1**: *Ensure no net loss of wetlands*	The applicants shall obtain appropriate permits from the Corps and USFWS to ensure that there is no net loss of wetlands. The applicants shall prepare annual reports on the status and success of mitigation and shall submit these reports to USFWS. The applicants shall coordinate with USFWS to modify as necessary any mitigation plans in an effort to attain mitigation success.	Prior to issuance of grading permit.	The City's Environmental Coordinator as preserve manager shall ensure that onsite wetlands are preserved and maintained consistent with the Operations and Maintenance Plan. The City shall provide yearly reports documenting the status and compliance with the Operations and Maintenance Plan to the USFWS.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	Remainder Area Refer to **MM 4.7-2**: *Wetlands protection policies* ***MM 4.7-3***: Vernal pool crustacean policies Prior to the adoption of any Specific Plans and/or other development proposals for the Remainder Area a delineation of all potential vernal pool crustacean habitat and appropriate surveys shall be performed. Surveys for vernal pool crustaceans shall follow the January 19, 1995 (or more recent version, if available) USFWS Guidelines for Surveys of the Endangered Conservancy Fairy Shrimp, Longhorn Fairy Shrimp, Riverside Fairy Shrimp, Vernal Pool Tadpole Shrimp, and the Threatened Vernal Pool Fairy Shrimp to determine the extent of the potential habitat that is present in the proposed development area. For those areas of potential habitat that are determined not to be occupied by federally listed vernal pool crustaceans, no further mitigation would be required. If federally listed vernal pool crustaceans are determined to occupy potential habitat that could be developed, MM 4.7-1 shall be implemented. Alternatively, the project applicant may assume that all potential vernal pool crustacean habitat is occupied and implement MM 4.7-1. In implementing MM 4.7-1, it shall be demonstrated in the project-level environmental document that the mitigation strategy would ensure no net loss of vernal pool crustacean habitat.	The applicants shall conduct appropriate biological species delineation and surveys in accordance with applicable rules and regulations governing the protection of listed species. The applicants shall obtain appropriate permits from the Corps and USFWS to ensure that there is no net loss of wetlands. The applicants shall prepare annual reports on the status and success of mitigation and shall submit these reports to USFWS. The applicants shall coordinate with USFWS to modify as necessary any mitigation plans in an effort to attain mitigation success.	Prior to approval of specific plans and environmental review.	Applicants within the Remainder Area will be responsible for preparation of specific plans, design guidelines, and environmental review. The Planning Director will ensure the specific plans and design guidelines adequately address vegetation and wildlife issues. The City's Environmental Coordinator as preserve manager shall ensure that onsite wetlands are preserved and maintained consistent with the Operations and Maintenance Plan.
Impact 4.7-3: Loss of rare plant populations.	**WRSP Area** Refer to **MM 4.7-1**: *Ensure no net loss of wetlands*	The applicants shall obtain appropriate permits from the Corps and USFWS to ensure that there is no net loss of wetlands. The applicants shall prepare annual reports on the status and success of mitigation and shall submit these reports to USFWS. The applicants shall coordinate with USFWS to modify as necessary any mitigation plans in an effort to attain mitigation success.	Prior to approval of grading permit.	The City's Environmental Coordinator as preserve manager shall ensure that onsite wetlands are preserved and maintained consistent with the Operations and Maintenance Plan.
	Remainder Area Refer to **MM 4.7-2**: *Wetlands protection policies*			

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.7-4: Loss or degradation of habitat for Western Spadefoot, a special-status species.	**WRSP Area** Refer to **MM 4.7-1**: *Ensure no net loss of wetlands* ***MM 4.7-4***: Relocate individual western spadefoots The location of pools that are occupied by western spadefoot shall be determined through surveys conducted during the appropriate season (generally February), by a qualified biologist. Those pools that are found to support western spadefoot shall be avoided if feasible. If avoidance is not feasible, then the CDFG shall be consulted to approve an adult or larval western spadefoots, or western spadefoot egg masses capture and relocation plan. Although there are no set protocol for this type of activity, the capture and relocation of reptile and amphibian species from areas that will be destroyed to areas of unoccupied suitable habitat is a fairly standard part of both USFWS and CDFG procedure for mitigating loss of population. When done in combination with habitat restoration and preservation, the procedure is known to be successful in preserving displaced populations. This measure would mandate that to the extent feasible, western spadefoots, which are displaced from pools that are destroyed during construction, would be relocated to protected areas of suitable habitat, thereby reducing impacts on western spadefoots to less-than-significant levels. MM 4.7-1, which requires no net loss of wetlands, would further reduce impacts on this species by, protecting or restoring its preferred breeding habitat (vernal pools and seasonal wetlands).	Appropriate biological species delineation and surveys shall be conducted in accordance with applicable rules and regulations governing the protection of listed species prior to approval of the grading permit. If necessary, a spadefoot capture and relocation plan shall be prepared in consultation with CDFG. The applicants shall coordinate with USFWS to modify as necessary any mitigation plans in an effort to attain mitigation success.	Prior to approval of the grading permit.	The City's Environmental Coordinator as preserve manager shall ensure that onsite wetlands are preserved and maintained consistent with the Operations and Maintenance Plan.
	Remainder Area Refer to **MM 4.7-2**: *Wetlands protection policies* ***MM 4.7-5***: Spadefoot protection policies Prior to the adoption of any Specific Plans and/or other development proposals for the Remainder Area CDFG approved protocol surveys shall be conducted, if necessary, to determine the presence or absence of pools occupied by western spadefoot. These surveys shall be conducted during the appropriate season (generally February), by a qualified biologist. If western spadefoot is found during surveys, the Specific Plan and/or development plan shall provide a plan and/or policies to protect this species. The plan and/or policies shall provide for avoidance of those pools that are found to support western spadefoot wherever feasible. If avoidance is not feasible, then the CDFG shall be consulted to approve an adult or larval western spadefoots, or western spadefoot egg masses capture and relocation plan. In addition, MM 4.7-2, which would result in no net loss of wetlands would assist in the preservation of vernal pool and seasonal wetland habitat that this species requires for breeding. This measure would ensure the survival of western spadefoots that are displaced from pools that are destroyed during construction by relocating them to protected areas of suitable habitat.	Appropriate biological species delineation and surveys shall be conducted in accordance with applicable rules and regulations governing the protection of listed species prior to approval of the grading permit. If necessary, a spadefoot capture and relocation plan shall be prepared in consultation with CDFG. The applicants shall coordinate with USFWS to modify as necessary any mitigation plans in an effort to attain mitigation success.	Prior to approval of the grading permit.	The City's Environmental Coordinator as preserve manager shall ensure that onsite wetlands are preserved and maintained consistent with the Operations and Maintenance Plan.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.7-5: Disruption of Swainson's Hawk, Burrowing Owl, and other legally protected raptors.	**WRSP Area** ***MM 4.7-6***: Avoid nesting sites To ensure that fully protected bird and raptor species are not injured or disturbed by construction in the vicinity of nesting habitat, the project applicant shall implement the following measures: (a) When feasible, all tree removal shall occur between August 30 and February 15 to avoid the breeding season of any raptor species that could be using the area, and to discourage hawks from nesting in the vicinity of an upcoming construction area. This period may be modified with the authorization of the DFG; or (b) Prior to the beginning of mass grading, including grading for major infrastructure improvements, during the period between February 15 and August 30, all trees and potential burrowing owl habitat within 350 feet of any grading or earthmoving activity shall be surveyed for active raptor nests or burrows by a qualified biologist no more than 30 days prior to disturbance. If active raptor nests or burrows are found, and the site is within 350 feet of potential construction activity, a fence shall be erected around the tree or burrow(s) at a distance of up to 350 feet, depending on the species, from the edge of the canopy to prevent construction disturbance and intrusions on the nest area. The appropriate buffer shall be determined by the City in consultation with CDFG. (c) No construction vehicles shall be permitted within restricted areas (i.e., raptor protection zones), unless directly related to the management or protection of the legally protected species. (d) In the event that a nest is abandoned, despite efforts to minimize disturbance, and if the nestlings are still alive, the developer shall contact CDFG and, subject to CDFG approval, fund the recovery and hacking (controlled release of captive reared young) of the nestling(s). (e) If a legally protected species nest is located in a tree designated for removal, the removal shall be deferred until after August 30th, or until the adults and young of the year are no longer dependent on the nest site as determined by a qualified biologist. (f) The project applicant, in consultation with the CDFG, shall conduct a pre-construction survey within the phases of the project site that are scheduled for construction activities. The survey shall be conducted by a qualified biologist to determine if burrowing owls are occupying the project site. The survey shall be conducted no more than three weeks prior to grading of the project site. If the above survey does not identify burrowing owls on the project site, then no further mitigation would be required. However, should burrowing owls be found on the project site, the following measures shall be required. (g) The applicant shall avoid all potential burrowing owl burrows that may be disturbed by project construction during the breeding	Results of preconstruction surveys shall be submitted to the Chief Building Inspector prior to the issuance of a grading permit. Applicable construction restrictions shall be reflected within building plans. The applicants shall prepare annual reports on the status and success of mitigation and shall submit these reports to USFWS and CDFG. The applicants shall coordinate with USFWS and CDFG to modify as necessary any mitigation plans in an effort to attain mitigation success.	Prior to approval of grading and building permits.	The Chief Building Inspector shall ensure that appropriate measures are reflected in the grading permit and/or building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's regulations. The Environmental Coordinator shall oversee open space areas for compliance with the Operations and Maintenance Plan.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	season between February 15 and August 30 (the period when nest burrows are typically occupied by adults with eggs or young). Avoidance shall include the establishment of a 350-foot diameter nondisturbance buffer zone around any occupied burrows. The buffer zone shall be delineated by highly visible temporary construction fencing. Disturbance of any occupied burrows shall only occur outside of the breeding season (August 30 through February 15). (h) Based on approval by the CDFG, preconstruction and nonbreeding season exclusion measures may be implemented to preclude burrowing owl occupation of the project site prior to project-related disturbance (such as grading). Burrowing owls may be passively excluded from burrows in the construction area by placing one-way doors in the burrows according to current CDFG protocol. The one-way doors must be in place for a minimum of three days. All burrows that may be occupied by burrowing owls, regardless of whether they exhibit signs of occupation, must be cleared. Burrows that have been cleared through the use of the one-way doors shall then be closed or backfilled to prevent owls from entering the burrow. The one-way doors shall not be used more than two weeks before construction to ensure that owls do not recolonize the area of construction.			
	Remainder Area ***MM 4.7-7***: Nest protection policies Prior to the adoption of any Specific Plans and/or other development proposals for the Remainder Area a plan and/or policies shall be developed and enacted to ensure that fully protected and raptor species are not injured or disturbed by construction in the vicinity of nesting habitat. The plan and or policies shall include the measures set forth above in MM 4.7-6.	The applicants shall conduct appropriate biological species delineation and surveys in accordance with applicable rules and regulations governing the protection of listed species. The applicants shall obtain appropriate permits from the USFWS and CDFG to ensure that impacts are reduced. The applicants shall prepare annual reports on the status and success of mitigation and shall submit these reports to USFWS and CDFG. The applicants shall coordinate with USFWS and CDFG to modify as necessary any mitigation plans in an effort to attain mitigation success.	Raptor protection plans and/or policies shall be approved prior to the issuance of a grading permit.	The Chief Building Inspector shall ensure that appropriate measures are reflected in the grading permit and/or building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's regulations. The Environmental Coordinator shall oversee open space areas for compliance with the Operations and Maintenance Plan.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.7-6: Loss of grassland habitat.	**WRSP Area** ***MM 4.7-8****:* Off-site and on-site preservation of grassland habitat ▪ CDFG recommends that projects that will result in the loss of potential foraging habitat for Swainson's hawk (which includes grasslands and certain agricultural croplands such as alfalfa) within 10 miles of an active nest site provide mitigation for that loss. To the extent feasible, strategies for preserving on-site grasslands as raptor and migratory bird foraging habitat will be addressed in the O&M Plan prepared pursuant to the Section 404 Permit. Some of these strategies could include, but are not necessarily limited to, grazing for grassland management, monitoring for biological values, and adaptive management. Mitigation for Swainson's hawk foraging habitat would concurrently mitigate for loss of habitat for a number of other wildlife species in the region such as burrowing owl, red-tailed hawk, white-tailed kite, northern harrier, and loggerhead shrike among many others. Based upon consultation with CDFG, a Swainson's Hawk Grassland Habitat Mitigation Plan has been developed to mitigate for the loss of grassland foraging habitat. Areas within Yankee Sough and other as of yet an undermined southern Placer County site (possibly Reason Farms) would be preserved (refer to Figure 4.7-4 on page 4.7-35 of the Final EIR). Up to 400 acres of the 878.743 additional Off-site Conservation Easement acres are proposed to be located at Reason Farms. Acquisition of the preservation acreages in two areas near Sheridan in southwestern Placer County detailed in Table 4.7-4 (page 4.7-72 of the Final EIR) and Figure 4.7-4 would reduce impacts due to loss of grasslands to **less than significant**. All subsequent land acquisition proposals to fulfill the remaining 878.743 acres of habitat needed for offsite conservation are determined by the City to be suitable habitat for the intended purposes as presented in the FEIR and are located, to the extent feasible, within the Phase 1 area of Placer Legacy, the Placer County NCCP/HCP effort. In making this determination, the City would consider the site location, current land uses, current and potential future surrounding land uses, the ability of the site to be incorporated into a large conservation strategy, whether the site would be acquired by easement or fee title, and a proposed management strategy (including a funding mechanism for necessary operation and maintenance, in perpetuity). This process will include consultation between the City of Roseville as the Lead Agency, the California Department of Fish and Game, and such other governmental agencies as the City believes are needed to assure the additional property meets the habitat requirements outlined in the FEIR. Additionally, land obtained for these purposes will be considered for transfer to a future JPA as part of the larger Placer County NCCP/HCP or other recognized non-profit conservation organization in consultation with the Department of Fish and Game.	The Swainson's Hawk grassland habitat mitigation program shall be implemented by the project applicants.	Prior to approval of the grading permit for each phase of the Project.	The Chief Building Inspector shall ensure that appropriate measures are reflected in the grading permit and/or building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's regulations. The Environmental Coordinator shall oversee open space areas for compliance with the Operations and Maintenance Plan.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	Remainder Area ***MM 4.7-9***: Swainson's hawk habitat policies Prior to the adoption of any Specific Plans and/or other development proposals for the Remainder Area, the applicant shall conduct additional environmental review and implement measures to protect Swainson's hawk habitat at a ratio commensurate with the habitat area to be lost due to proposed development.	The applicants shall conduct appropriate biological species delineation and surveys in accordance with applicable rules and regulations governing the protection of listed species. The applicants shall obtain appropriate permits from the Corps, USFWS, and CDFG, as appropriate, to ensure that impacts are reduced. The applicants shall prepare annual reports on the status and success of mitigation and submit them to the USFWS and CDFG. The applicants shall coordinate with USFWS to modify as necessary any mitigation plans in an effort to attain mitigation success.	Prior to approval of annexation.	Applicants within the Remainder Area will be responsible for preparation of specific plans, design guidelines, and environmental review. The Planning Director will ensure the specific plans and design guidelines adequately address vegetation and wildlife issues. The City's Environmental Coordinator as preserve manager shall ensure that mitigation measures are implemented.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.7-7: Substantial interference with the movement of resident and migratory wildlife species.	**WRSP Area** ***MM 4.7-10****:* Stream protection policies To protect the sensitive habitat within the riparian area, and its potential use by wildlife as movement corridors, the project applicant shall provide for the protection of stream corridors on the WRSP Area from disturbance due to construction or obstruction (e.g., fill, culverts) through compliance with Section 1600 of the CDFG Code (Section 1600). Compliance with Section 1600 requires that the applicant enter into a Section 1600 Streambed Alteration Agreement prior to conducting any construction activities within a stream corridor (as defined in Section 1600), which sets forth mitigation measures that the applicant must implement. These measures shall include, but not be limited to, the use of either bridges or culverts that are large enough that wildlife have enough space to pass through these road crossings without having to travel over the road surface, the implementation of bank stabilization measures, and/or restoration and revegetation of stream corridor habitat that has been damaged due to the project's construction. Furthermore, the recreational trails and garden area shall be lined by post and rail fence and signage would be used to direct trail and garden users to stay within the designated trail corridor or garden area. The trails and garden would also be closed after dark and no exterior lighting shall be used. Lastly, the implementation of MM 4.7-1, and MM 4.7-8, which would provide for the conservation of on-site open space and riparian areas around Pleasant Grove and Kaseberg Creeks. Refer to **MM 4.13-1(d)** below for avoiding light spill over into riparian habitat. Refer to **MM 4.7-13(d)** below for shielding of adjacent lighting away from riparian areas.	The applicants shall enter into a Section 1600 Streambed Alteration Agreement with CDFG. The City's NPDES Coordinator shall ensure measures are included in the project to reduce water quality impacts.	Prior to approval of grading permits.	The City of Roseville's NPDES Coordinator shall ensure that water quality measures are implemented and the City's Environmental Coordinator as preserve manager shall ensure that activities are consistent with the Open Space Operation and Maintenance Plan.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	Remainder Area ***MM 4.7-11***: Stream protection policies To protect the sensitive habitat within the riparian area, and its potential use by wildlife as movement corridors, project-related activities would be prohibited within a buffer zone adjoining the riparian area a minimum of 50 horizontal feet from the edge of the riparian vegetation or active channel, whichever is greatest. Buffers are established and managed to reduce the impact of adjacent land use. The design of a buffer serves several important functions: it preserves the stream's natural characteristics, protects water quality, and improves habitat for plants and animals on land and in the water. Any Specific Plans and/or other development proposals for the Remainder Area that involve the alteration or development of areas within the 50 foot riparian buffer areas shall demonstrate how the stream corridors, and the wildlife that use them, will be protected from disturbance due to construction or obstruction (e.g., fill, culverts), passive recreation, or other activities that would otherwise restrict or prevent the unobstructed movement of wildlife through them. This shall be demonstrated to the satisfaction of the CDFG or other jurisdictional bodies. Those plans or proposals shall require use of either bridges or culverts that are large enough that wildlife have enough space to pass through these road crossings without having travel over the road surface. Additionally future development within the Remainder Area would be required to maintain the stream corridors in perpetuity via a conservation easement or other deed restriction. The conservation easement shall stipulate permitted uses within this area, as well as provide a maintenance and enhancement plan that would list, among other maintenance and enhancement plans, the details, responsible parties, funding mechanisms, and schedule. Alternately, this measure may be implemented by obtaining a Section 1600 Streambed Alteration Agreement from the CDFG prior to any construction activities within stream corridors. Specific measures would be developed during discussions with the CDFG, but may include using bridges instead of culverts, erosion control and bank stabilization measures, and/or restoration of stream corridor habitat that has been damaged due to the projects construction. Refer to **MM 4.7-13(d)** below for shielding of adjacent lighting away from riparian areas. Refer to **MM 4.13-1(d)** below for avoiding light spill over into riparian habitat.	Prior to annexation within the Remainder Area Specific Plans, development of Specific Plan policies and Design Guidelines will be required. The applicants shall be required to obtain the appropriate streambed alteration permits as necessary.	Prior to approval of annexation.	Applicants within the Remainder Area will be responsible for preparation of specific plans, design guidelines, and environmental review. The Planning Director will ensure the specific plans and design guidelines adequately address vegetation and wildlife issues.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.7-8: Loss of oak trees of greater than 6 inches DBH	**WRSP Area** The applicants will be required to meet the requirements of the City's Tree Preservation Chapter of the Zoning Ordinance. Tree replacement can be accomplished through planting of new trees on an inch for inch basis using the required number of fifteen (15) gallon sized native oak trees, or by paying an in-lieu mitigation fee that is based on the required number of fifteen gallon sized trees, in either the Native Oak Tree Propagation Fund or the Nonnative Tree Fund as described in Section 19.66.070 Oak Tree Planting and Replacement Program. At this time, the applicant is proposing to plant native oak trees onsite along a 45.6 area adjacent to Pleasant Grove Creek.	The applicants will be required to obtain Tree Permits that will more specifically outline the trees to be removed and the mitigation measures.	The Tree Permit application would be required prior to issuance of a Grading Permit.	The Applicants will be responsible for planting replacement trees and/or contributing an in-lieu fee consistent with the Tree Permits. The Planning Director will oversee the Tree Permit and mitigation program to ensure that the measures are implemented.
Impact 4.7-9: Loss of riparian habitat.	**WRSP Area** ***MM 4.7-12***: Sensitive habitat buffer zones The applicant shall avoid and preserve riparian vegetation within SOI Amendment Area to the extent feasible. Native streamside vegetation occurring in the riparian zone shall be protected and retained to filter groundwater runoff. In addition, a 50-foot buffer shall be established from the edge of the riparian vegetation or top of the bank, whichever is greatest, and, if necessary, enhanced by plantings of native species within the project site adjacent to the drainage. Essential infrastructure including maintenance road access and utilities may occur within the riparian buffer area. Buffers are established and managed to reduce the impact of adjacent land use. The design of a buffer serves several important functions: it preserves the stream's natural characteristics, protects water quality, and improves habitat for plants and animals on land and in the water. Project design would strive to site any drainage crossings in areas where riparian trees and other riparian vegetation are least dense. Additionally the stream corridors identified as wetlands mitigation areas shall be conserved in perpetuity via a conservation easement or other deed restriction. The conservation easement shall stipulate permitted uses within this area, as well as provide a maintenance and enhancement plan that would list, among other maintenance and enhancement plans, the details, responsible parties, funding mechanisms, and schedule. If impacts to riparian vegetation do occur as a result of the project, they shall be minimized to the extent feasible through the use of BMPs, and mitigated for at a ratio acceptable to the CDFG.	The applicants shall design the project to avoid and preserve riparian vegetation.	Prior to construction.Prior to issuance of the first grading permit and/or prior to the movement of earth moving equipment to the site, the applicant shall identify sensitive habitat buffer zones and construction protocols.	The Public Works Director and Planning Director shall ensure that the 50-foot setback is maintained. The Environmental Coordinator shall ensure that the project is consistent with the Open Space Operations and Maintenance Plan.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	MM 4.7-13: Riparian habitat policies To protect riparian vegetation within the SOI Amendment Area, the following policies shall be implemented: (a) The project applicant shall provide for temporary fencing along the top of the bank during construction of those areas of the proposed project site adjacent to riparian habitat to discourage access to the riparian habitat by humans and pets. (b) The project applicant shall provide for permanent fencing and/or a landscape barrier to discourage access to the riparian habitat by humans and pets. The fencing and/or landscape barrier shall be placed at the top of the bank of the creeks along those portions of the site adjacent to riparian habitat. The proposed recreation trail shall be on the project site side of the fence/landscape barrier. The fencing and/or landscape barrier shall be constructed of wood or other natural materials and shall allow for the viewing of the riparian habitat while discouraging access. (c) Interpretive signs and displays shall be posted along the border of the riparian area to educate the public and route access away from sensitive areas. These informative signs will be posted at intervals of not less than 500 feet along the border with information regarding the objectives of creek and riparian habitat protection. Signs should also include information regarding the importance of restricting access to the riparian area by household pets. Such signs will be made of wood or similar natural material, and be maintained by the applicant. (d) Lighting adjacent to riparian buffers should be shielded away from the riparian areas. Implementation of MM 4.7-13 would reduce project impacts to riparian habitat to a *less-than-significant level* by ensuring *the* protection of riparian resources from encroachment or disturbance due to the increased number of pets and humans in the proposed project site.	The applicants shall design the project to avoid and preserve riparian vegetation.	Temporary fencing shall be implemented prior to approval of grading permit. Permanent measures shall be shown on improvement plans and approved at the time of final small lot map.	The Public Works Director shall ensure that appropriate measures are reflected in the building plans and that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's regulations and the Environmental Coordinator shall ensure that the applicants comply with the Open Space Operations and Maintenance Plan.
	Remainder Area Refer to **MM 4.7-13**: *Riparian habitat policies* and **MM 4.7-12**: *Buffer zones and barriers*	Prior to annexation within the Remainder Area Specific Plans, development of Specific Plan policies and Design Guidelines will be required.	Prior to approval of annexation.	Applicants within the Remainder Area will be responsible for preparation of specific plans, design guidelines, and environmental review. The Planning Director will ensure the specific plans and design guidelines and environmental documents adequately address riparian issues.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.7-10: Loss of biological resources due to construction of off-site infrastructure.	**WRSP Area** Refer to **MM 4.7-1**: *Ensure no net loss of wetlands*; **MM 4.7-4**: *Relocate individual western spadefoots*; **MM 4.7-6**: *Avoid nesting sites*; **MM 4.7-8**: *Off-site and on-site preservation of grassland habitat*; and, **MM 4.7-10**: *Stream protection policies* ***MM 4.7-14***: Conduct appropriate surveys Prior to construction of any off-site infrastructure, a qualified biologist shall perform general (detailed) and, if necessary, focused biological surveys of any undisturbed areas that would be affected by infrastructure development. Because infrastructure for the proposed project would be located in road rights-of-way, or undeveloped land similar to the project site, the biological resources that would be expected to occur would not differ substantially from those identified in this EIR. If it is determined that wetland resources or sensitive species would be impacted, MM 4.7-1, MM 4.7-4, MM 4.7-6, MM 4.7-8, and MM 4.7-10 shall be implemented, as appropriate to the resource.	Appropriate biological surveys, environmental review, and appropriate permits shall be conducted in accordance with applicable rules and regulations governing the protection of listed species.	Prior to issuance of grading permit.	The Director of Public Works and the Environmental Coordinator shall ensure that the appropriate environmental review and permits are obtained and measures implemented to reduce impacts associated with off-site infrastructure.
	Remainder Area Refer to **MM 4.7-2**: *Wetlands protection policies*; **MM 4.7-3**: *Vernal pool crustacean policies*; **MM 4.7-5**: *Spadefoot protection policies*; **MM 4.7-7**: *Nest protection policies*; **MM 4.7-9**: *Swainson's hawk habitat policies*; and, **MM 4.7-11**: *Stream protection policies* ***MM 4.7-15***: Off-site survey policies Prior to construction of any off-site infrastructure for Specific Plans and/or other development proposals for the Remainder Area, the City shall require that appropriate biological surveys have been conducted, and mitigation implemented. The surveys shall be performed, as needed, and within any undisturbed areas that would be affected by infrastructure development. Because infrastructure for the Remainder Area would be located in road rights-of-way, or undeveloped land similar to the project site, the biological resources that would be expected to occur would not differ substantially from those identified in this EIR. Therefore, if such resources are found, MM 4.7-2, MM 4.7-3, MM 4.7-5, MM 4.7-7, MM 4.7-9, and MM 4.7-11 shall be implemented, as appropriate to the resource.	Prior to annexation within the Remainder Area Specific Plans, development of Specific Plan policies and Design Guidelines will be required. Appropriate biological surveys shall be conducted in accordance with applicable rules and regulations governing the protection of listed species.	Prior to approval of annexation. Prior to approval of grading permit.	Applicants within the Remainder Area will be responsible for preparation of specific plans, design guidelines, and environmental review. The Planning Director will ensure the specific plans and design guidelines and environmental documents adequately address riparian issues.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
4.8 Cultural Resources				
Impact 4.8-1: Disturb, damage or destroy unidentified subsurface archaeological resources during project construction.	**WRSP Area** ***MM 4.8-1***: Cease Work and Consult with Qualified Archaeologist Should any cultural resources, such as structural features, any amount of bone or shell, artifacts, human remains, or architectural remains be encountered during any subsurface development activities, work shall be suspended within 100 feet of the find, and the City of Roseville shall be immediately notified. At that time, the City shall coordinate any necessary investigation of the site with qualified archaeologists as needed to assess the resource and provide proper management recommendations. Possible management recommendations for important resources could include resource avoidance or data recovery excavations. The contractor shall implement any measures deemed necessary for the protection of the cultural resources. In addition, pursuant to section 5097.98 of the State Public Resources Code, and section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.	This condition shall be reflected in all construction and building plans. The Public Works Director shall review plans for inclusion and permits of specifications prior to the issuance of building permits.	Prior to approval of grading permit and/or improvement plans.	The Public Works Director will ensure that appropriate measures are reflected in the grading permit and/or building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's regulations.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	Remainder Area ***MM 4.8-2***: Include Policies and Conditions That Require Proper Handling of Resources Specific Plans and/or other development proposals for the Remainder Area shall include policies and/or conditions that require proper handling of any subsurface cultural resources unearthed during project construction. The policies and/or conditions shall provide that, if any cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains, are encountered during any development activities, work shall be suspended within 100 feet of the find, and the City of Roseville shall be immediately notified. At that time, the City shall coordinate any necessary investigation of the site with qualified archaeologists as needed to assess the resource and provide proper management recommendations. If the find is determined to be an historical or unique archeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures and mitigation will be made available. Possible management recommendations for important resources could include resource avoidance or data recovery excavations. The contractor shall implement any measures deemed necessary by the archeologists for the protection of the cultural resources. In addition, pursuant to section 5097.98 of the State Public Resources Code, and section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.	This condition shall be reflected in all construction and building plans. The Public Works Director shall review plans for inclusion of specifications prior to the issuance of building permits.	Prior to approval of grading or building permits.Prior to approval of annexation.	The Public Works Director will ensure that appropriate measures are reflected in the grading permit and/or building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's regulations.
	MM 4.8-3: Conduct Archeological Surveys Specific Plans and/or other development proposals for the Remainder Area, shall identify known and/or potential archaeological sites, based on field surveys of the area proposed for development conducted by a qualified archaeologist as part of the specific plan environmental review process. If significant resources or significant archaeological sites are present, the Specific Plan and/or development proposal shall designate the area surrounding the site as open space, as feasible. If retention of such resources is not feasible, recordation of the sites shall be required, along with treatment as is recommended by the archaeologist after consultation with SHPO and, if the find is prehistoric, the Native American Heritage Council.	Archaeological surveys shal be conducted prior to approval of any Specific Plan or development proposal.	Prior to approval of grading or building permits.	The Public Works Director will ensure that appropriate surveys are conducted. The SHPO and NAHC shall be consulted as appropriate.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.8-2: Removal of historically significant properties and/or loss of historic integrity of such resources.	**WRSP Area** ***MM 4.8-4 (a)***: Retain Fiddyment Ranch Main Complex The WRSP calls for the preservation of the integrity of the Fiddyment Ranch Complex (the main ranch house and associated outbuildings) as a historical resource within the Regional Soccer Complex. To ensure its preservation the retention of the Fiddyment Ranch Main Complex is included as a mitigation measure. Before planning of the park site, the City will evaluate buildings and structures as significant resources and treated in accordance with the Secretary of Interior Standards for Preserving, Rehabilitating and Reconstructing Historic Buildings, which ensure that any renovation is compatible with historic properties. OR	Plans for the Regional Soccer complex shall reflect the preservation of Fiddyment Ranch Main Complex. The City Parks and Recreation Department proposes to retain the Fiddyment Ranch Main Complex as part of the City-wide sports complex.	Prior to approval of specific park plans for the Fiddyment Ranch Complex.	The Parks and Recreation Director shall ensure that the ranch complex resources are preserved and mitigation measures are implemented.
	MM 4.8-4 (b): Retain Portions of the Fiddyment Ranch Main Complex If any future specific proposals propose altering or removing any part of the existing Fiddyment Ranch Main Complex (e.g., removing buildings), the project applicant shall record the resource prior to issuance of a demolition permit by the City (see also MM 4.8-5) and shall be required to consult with an architectural historian prior to removal of any buildings within the complex.	An architectural historian shall be consulted before the removal of any buildings within the Fiddyment Ranch Main Complex and a record of any historically significant resource shall be prepared in compliance with the National Parks Service standards.	Prior to issuance of a demolition permit.	The Parks and Recreation Director shall ensure that the ranch complex resources are preserved and mitigation measures are implemented.
	MM 4.8-5: Record Historically Significant Resources For any historically significant resource, including the Fiddyment Ranch Main Complex, the record of the building shall be prepared by the Project Applicant prior to issuance of a demolition permit. In addition, the record shall comply with the National Parks Service standards [Historical American Building Surveys (HABS)]. A copy of the record shall be deposited with the State Office of Historic Preservation (SHPO). The appropriate level of recordation shall be determined in consultation with SHPO. Recordation shall include: ▪ The development of site-specific history and appropriate contextual information regarding the historic resource; in addition to archival research and comparative studies, this task could involve limited oral history collection; ▪ Accurate mapping of the resource, scaled to indicate size and proportion of each structure; ▪ Architectural descriptions; ▪ Photodocumentation in both still and video formats; and, ▪ Recordation of measured architectural drawings.	A record of any historically significant resource shall be prepared in compliance with the National Parks Service standards.	Prior to issuance of a demolition permit.	The Parks and Recreation Director shall ensure that the mitigation measures are implemented.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	MM 4.8-6: Rehabilitate and Reuse Historically Significant Properties Prior to approval of reuse and/or alteration if the Fiddyment Ranch Complex, an architectural historian shall review the proposal and provide recommendations to assure that the integrity of the complex is retained. If adaptive reuse of the buildings is an option, the exterior of the historic properties should be rehabilitated and adaptively reused in accordance with the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (U.S. Department of the Interior, National Park Service, 1992 [Standards]. Finish materials, casework, and trim on the interior should be restored and/or reused where feasible.	An architectural historian shall be consulted before the reuse and/or alteration of any buildings within the Fiddyment Ranch Main Complex.	Prior to issuance of building permit.	The Parks and Recreation Director shall ensure that the mitigation measures are implemented.
	Remainder Area ***MM 4.8-7***: Include Policies to Survey Structures Over 45 Years of Age The project applicant(s) for Specific Plans and/or other development proposals for the Remainder Area shall document the age of all structures or buildings within the area proposed for development (including areas proposed to remain in open space). If any buildings or structures are over 45 years of age, a qualified architectural historian or similar professional shall assess their historic significance. If feasible, historically significant structures, buildings or complexes shall be retained in their present location.	Prior to annexation within the Remainder Area Specific Plans, development of Specific Plan policies and Design Guidelines will be required. The historical significance of structures determined to be over 45 years of age shall be assessed by a qualified architectural historian (or similar profession).	Prior to approval of annexation.	The Planning Director will ensure the specific plans and design guidelines and environmental documents adequately address historic structures.
	MM 4.8-8: Properly Record Any Identified Historical Resources Specific Plans and/or other development proposals for the Remainder Area shall require that, if any historically significant resource is identified, the project applicants shall be required to prepare a record of the building in compliance with National Parks Service standards [Historical American Building Surveys (HABS)]. A copy of the record shall be deposited with the State Office of Historic Preservation (SHPO). The appropriate level of recordation shall be determined in consultation with SHPO. Recordation shall include: ▪ The development of site-specific history and appropriate contextual information regarding the historic resource; in addition to archival research and comparative studies, this task could involve limited oral history collection; ▪ Accurate mapping of the resource, scaled to indicate size and proportion of each structure; ▪ Architectural descriptions; and, ▪ Photodocumentation in both still and video formats. ▪ Recordation of measured architectural drawings	A record of any historically significant resource shall be prepared in compliance with the National Parks Service standards.	Prior to issuance of building permit.	The Planning Director will ensure the specific plans and design guidelines and environmental documents adequately address riparian issueshistoric resources.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	MM 4.8-9: Include Policies that Require Rehabilitation and Reuse of Historically Significant Properties Specific Plans and/or other development proposals for the Remainder Area shall include policies or conditions of project approval requiring the exteriors of historic properties that will be adaptively reused, to be rehabilitated and reused in accordance with the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (U.S. Department of the Interior, National Park Service, 1992 [Standards]. In addition, finish materials, casework, and trim on the interior should be restored and/or reused where feasible.	Specific plans or other development proposals shall include policies that require rehabilitation and reuse of historically significant properties.	Prior to approval of specific plan or other development proposal.	The Planning Director shall review all proposals for the rehabilitation and reuse of historically significant properties.
Impact 4.8-3: Disturb unknown paleontological resources during site preparation.	**WRSP Area** ***MM 4.8-10***: Cease Work Until Review Conducted by Qualified Paleontologist and Recommendations Implemented Should any evidence of paleontological resources (e.g., fossils) be encountered during grading or excavation, work shall be suspended within 100 feet of the find, and the City of Roseville shall be immediately notified. At that time, the City shall coordinate any necessary investigation of the site with a qualified paleontologist to assess the resource and provide proper management recommendations. Possible management recommendations for important resources could include resource avoidance or data recovery excavations. The contractor shall implement any measures deemed necessary by the paleontologist for the protection of the paleontological resources.	This condition shall be reflected in all construction and building plans and permits. The Public Works Director shall review plans for inclusion of specifications prior to the issuance of building permits.	During construction, as a condition of Grading and Building Permits.	The Public Works Director will ensure that appropriate measures are reflected in the grading permit and/or building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's regulations.
	Remainder Area ***MM 4.8-11***: Include Policies in Specific Plans to Ensure the Proper Handling of Paleontological Resources Specific Plans and/or other development proposals for the Remainder Area shall include policies and/or conditions of approval that require the proper handling should any evidence of paleontological resources (e.g., fossils) be encountered during grading or excavation. If any paleontological resources are identified during project construction, work shall be suspended within 100 feet of the find, and the City of Roseville shall be immediately notified. At that time, the City shall coordinate any necessary investigation of the site with a qualified paleontologist to assess the resource and provide proper management recommendations. Possible management recommendations for important resources could include resource avoidance or data recovery excavations. The contractor shall implement any measures deemed necessary by the paleontologist for the protection of the paleontological resources.	This condition shall be reflected in all construction and building plans and permits. The Public Works Director shall review plans for inclusion of specifications to protect paleontological resources prior to the issuance of building permits.	During construction, as a condition of Grading and Building Permits.	The Public Works Director will ensure that appropriate measures are reflected in the grading permit and/or building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's regulations.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.8-4: Damage or destroy historic or prehistoric resources during construction of off-site infrastructure.	**WRSP Area** Refer to **MM 4.8-1**: *Cease Work and Consult with Qualified Archaeologist*; **MM 4.8-5**: *Record Historically Significant Resources*; **MM 4.8-6**: *Rehabilitate and Reuse Historically Significant Properties*; and, **MM 4.8-10**: *Cease Work Until Review Conducted by Qualified Paleontologist and Recommendations Implemented*; ***MM 4.8-12***: Conduct Appropriate Studies Prior to undertaking construction of off-site infrastructure, the City shall determine whether cultural resource surveys have been undertaken for any areas to be disturbed during construction. If surveys were conducted, the City shall document that any identified resources were treated as recommended in the studies. If no studies or surveys were conducted, the City shall ensure that a qualified archaeologist conducts the appropriate level of study. If resources are found, the study recommendations shall be implemented to ensure that the resources are avoided, protected, and/or recorded, as appropriate.	Cultural resource surveys shall be conducted by a qualified archaeologist and any resulting recommendations to protect resources shall be reflected in all construction and building plans. The Public Works Director shall review plans for inclusion of specifications prior to the issuance of building permits.	During construction, as a condition of Grading and Building Permits.	The Public Works Director will ensure that appropriate measures are reflected in the grading permit and/or building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's regulations. The Environmental Coordinator shall oversee open space areas for compliance with the Operations and Maintenance Plan. The Parks and Recreation Director shall ensure that measures to protect and mitigate historic resources are implemented for any historic structures within parks property.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	Remainder Area Refer to **MM 4.8-2**: *Include Policies and Conditions That Require Proper Handling of Resources*; **MM 4.8-7**: *Include Policies to Survey Structures Over 45 Years of Age*; **MM 4.8-8**: *Properly Record Any Identified Historical Resources*; and, **MM 4.8-11**: *Include Policies in Specific Plans to Ensure the Proper Handling of Paleontological Resources* ***MM 4.8-13***: Conduct Appropriate Studies Specific Plans and/or other development proposals for the Remainder Area shall require that prior to undertaking construction of off-site infrastructure, the City shall ensure that cultural resource surveys are completed for any areas to be disturbed during construction. If surveys were conducted, the City shall document that any identified resources were treated as recommended in the studies. If no studies or surveys were conducted, the City shall ensure that a qualified archaeologist conducts the appropriate level of study. If resources are found, the study recommendations shall be implemented to ensure that the resources are avoided, protected, and/or recorded, as appropriate.	Cultural resource surveys shall be conducted by a qualified archaeologist and any resulting recommendations to protect resources shall be reflected in all construction and building plans. The Public Works Director shall review plans for inclusion of specifications prior to the issuance of building permits.	During construction, as a condition of Grading and Building Permits.	The Public Works Director will ensure that appropriate measures are reflected in the grading permit and/or building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's regulations.
4.9 Hazardous Materials and Public Safety				
Impact 4.9-2: Increased demand for hazardous materials incident emergency response.	**Remainder Area** Refer to **MM 4.10-3**: *Construct New Stations as Needed* (Public Services) below.			
Impact 4.9-5: Soil or groundwater contamination related to past uses.	**WRSP Area** ***MM 4.9-1***: Identify and Remediate Soil Contamination Prior to site development in the WRSP Area, recommended testing and remediation identified in the Phase I ESA shall be performed and existing groundwater wells shall be properly closed. If evidence of soil contamination is encountered in previously unidentified locations in the WRSP Area, work shall cease until the area can be tested, and, if necessary, remediated. Remediation activities could include removal of contaminated soil and/or on-site treatment. As part of this process, the City shall ensure that any necessary investigation and/or remediation activities conducted in the WRSP Area are coordinated with the Roseville Fire Department, Placer County Division of Environmental Health, and, if needed, other appropriate state and/or local agencies. Once a site is remediated, construction may continue. The City shall also continue to update its records concerning contamination or hazards that could be present at facilities or sites adjacent to WRSP Area, and take necessary action to ensure that the health and safety of the public is protected.	The applicants shall ensure that recommended testing and remediation identified in the Phase I ESA will be performed and existing groundwater wells shall be properly closed.	Prior to issuance of building permit.	The Fire Marshall shall ensure that the mitigation measures are implemented.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	Remainder Area ***MM 4.9-2***: Soil Contamination Policies Specific Plans and/or other development proposals for the Remainder Area shall include a Phase I ESA and require that recommended testing and remediation identified in the Phase I ESA be performed. Specific Plan and/or development proposal policies or conditions shall require that, if evidence of soil contamination is encountered in previously unidentified locations in the Remainder Area to be developed, work shall cease until the area can be tested, and, if necessary, remediated. As part of this process, the City shall ensure that any necessary investigation and/or remediation activities conducted in the Remainder Area are coordinated with the Roseville Fire Department, Placer County Division of Environmental Health, and, if needed, other appropriate state and/or local agencies. Once a site is remediated, construction may continue. The City shall also continue to update its records concerning contamination or hazards that could be present at facilities or sites adjacent to the SOI Amendment Area, and take necessary action to ensure that the health and safety of the public is protected.	Prior to annexation within the Remainder Area Specific Plans, the applicants shall ensure that a Phase I ESA has been conducted and recommended testing and remediation identified in the Phase I ESA is performed.	Phase I ESA shall be required prior to annexation. Recommended testing and remediation shall be performed prior to issuance of a building permit.	The Planning Director will ensure the specific plans and design guidelines and environmental documents adequately address riparian issuespotential soil contamination issues.
Impact 4.9-8: Temporary truck route for transportation of hazardous materials through the WRSP area.	**WRSP Area** ***MM 4.9-3***: Temporary Truck Route Notification Residents purchasing homes along Hayden Parkway and Bob Doyle Drive shall be notified that Hayden Parkway and Bob Doyle Drive will be used as a temporary truck route to transport potentially hazardous materials to the PGWWTP, and potentially the Roseville Energy Park until the extensions of Blue Oaks Boulevard and Phillip Road are constructed. In addition, signage shall be installed along Hayden Parkway and Bob Doyle Drive notifying residents and visitors that these roadways are used as a temporary truck route.	The applicants shall install the appropriate signage along Hayden Parkway and Bob Doyle Drive notifying residents and visitors that these roadways are being used as a temporary truck route.	Prior to and during issuance of building permit.	The Public Works Director and Fire Marshall shall ensure that the mitigation measures are implemented. In addition, the City Attorney shall ensure that deed discloser statements or other appropriate mechanisms notify residents of the temporary truck route.
Impact 4.9-9: Siting of a school within on-fourth mile of the handling or transportation of hazardous materials.	**WRSP Area** None required.	The school district will need to conduct additional site specific environmental review to ensure that impacts are less than significant.	N/A	N/A

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
4.10 Public Services				
Impact 4.10-1: Increased demand for police protection services.	**WRSP Area** ***MM 4.10-1(a)***: Increase Number of Police Officers in the Roseville Police Department Police Department staffing to serve the WRSP shall be increased to meet General Plan standards. Based on the projected population increase of approximately 20,810 residents in the WRSP Area, additional officers would be required to serve the new population. The City would fund these positions through increased general revenues generated by new development and the City's General Fund.	The City shall increase police staffing at the Roseville Police Department consistent with City policy.	Public facilities fees will be collected at the time of Building Permit issuance.	The Finance Director and the Police Chief shall ensure that staffing levels are adequately maintained.
	MM 4.10-1(b): Expand the Roseville Police Department Headquarters An expansion of the Police Headquarters or potentially a satellite facility in the WRSP would likely be needed at buildout of the WRSP to accommodate the additional Department staff required by MM 4.10-1(a). The current size of Police Headquarters is insufficient to accommodate a large increase in police staff. The City would fund the expansion through increased general revenues generated by new development through the Capital Facilities Fee collected at the Building Permit stage. Planning and environmental review would be required for the development of an additional station or the expansion of the existing station. Depending on its design, size, and location, the expansion of the existing station or the construction of new law enforcement facilities could lead to increased air emissions, noise, and traffic, as well as loss or degradation of biological habitat, cultural resources, water quality, or other potentially significant environmental impacts. Impacts would be addressed on a project-specific basis prior to approval of construction.	The City shall expand the Roseville Police Department Headquarters on an as needed basis.	Public facilities fees will be collected at the time of Building Permit issuance.	The Police Chief will monitor the need for new facilities.
	MM 4.10-1(c): Expand the Voice Radio Communication System and Data Radio Systems The voice radio communication system and data radio system shall be expanded, including possibly an additional antenna tower, to provide adequate radio service to the WRSP Area. The City would fund the expansion through increased developer contributions generated by new development and the City's General Fund.	The City shall expand its voice radio communication system and data radio system.	Public facilities fees will be collected at the time of Building Permit issuance.	The Police Chief and the Fire Chief will monitor the communication system and upgrade as necessary

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	Remainder Area ***MM 4.10-2***: Law Enforcement Policies Specific Plans and/or other development proposals for the Remainder Area shall provide for Police Department staffing and facilities at levels consistent with General Plan standards that would extend law enforcement into the area to be developed at levels needed to provide adequate public safety, and at ratios consistent with the City as a whole. The City would fund these positions through increased general revenues generated by developer fee contributions and the City's General Fund. Planning and environmental review would be required for the development of an additional station or the expansion of existing stations. Depending on its design, size, and location, the expansion of existing stations or the construction of new law enforcement facilities could lead to increased air emissions, noise, and traffic, as well as loss or degradation of biological habitat, cultural resources and water quality, or other potentially significant environmental impacts. Impacts would be addressed on a project-specific basis prior to approval of construction.	Prior to annexation within the Remainder Area Specific Plans, development of Specific Plan policies and Design Guidelines will be required.	Fees will be collected at the time of Building Permit issuance.	The Finance Director and the Police Chief shall ensure that staffing levels are adequately maintained.
Impact 4.10-2: Increased demand on fire protection services.	**Remainder Area** ***MM 4.10-3***: Construct New Stations as Needed The Roseville Fire Department shall closely monitor the response times within any new development area and provide for new stations as needed. Timing the construction and staffing of the new fire stations shall be consistent with Fire Department Standards of Response Coverage Study. Potentially significant environmental impacts associated with construction of new fire stations will be addressed in a project-specific basis prior to approval of construction.	Construction and staffing of any new fire stations shall be consistent with Fire Department Standards of Response Coverage Study.	Fees will be collected at the time of Building Permit issuance.	The Fire Chief shall monitor response times and ensure that stations are adequately situated to meet the needs of the community.
	MM 4.10-4: Demonstrate Adequate Response Time or Provisions Specific Plans and/or other development proposals for the Remainder Area shall strive to meet the RFD's response time standard.	Prior to annexation within the Remainder Area Specific Plans, development of Specific Plan policies and Design Guidelines will be required.	Fees will be collected at the time of Building Permit issuance.	The Fire Chief shall monitor response times and ensure that adequate fire service is provided.
	MM 4.10-5: Identify Appropriate Fire Station Locations Prior to any development or Specific Plan approval for the Remainder Area, the Roseville Fire Department shall determine whether response times within the Remainder Area could be met with existing stations and/or stations shown in the West Roseville Specific Plan.	Prior to annexation within the Remainder Area Specific Plans, development of Specific Plan policies and Design Guidelines will be required.		

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	MM 4.10-6: Adopt Fire Prevention and Suppression Policies Specific Plans and/or other development proposals for the Remainder Area shall either include specific policies or condition development to include the following: ▪ A 30-foot-wide mowed or graded fire break maintained at the perimeter of all Open Space areas. ▪ All fences at the perimeter of Open Space Preserve Areas constructed of noncombustible materials, except that wood posts may be used in post-and-cable barriers adjacent to landscape corridors and street edges. ▪ The Roseville Fire Department shall maintain a fire management plan that includes the maintenance of fire breaks and periodic fuel reduction.	Fire Prevention and Suppression Policies shall be adopted.	Prior to annexation.	The Fire Chief shall review development proposals and ensure that adequate provisions are provided
Impact 4.10-3: Increased demand for schools.	**Remainder Area** ***MM 4.10-7***: Designate School Sites Specific Plans and/or other development proposals for the Remainder Area shall designate school sites needed to serve that plan's student population, unless the appropriate school district confirms in writing that other existing and planned schools would have adequate capacity. Potentially significant environmental impacts associated with the construction of new school facilities or the physical alteration of existing school facilities would be addressed on a project-specific basis at the time of construction or alteration.	Prior to annexation within the Remainder Area Specific Plans, new school sites shall be designated to adequately serve development in the Remainder Area's student population consistent with City Policy.	Prior to annexation.	The Planning Director shall ensure that new school sites are designated in any Specific Plan or other development proposal, as appropriate.
Impact 4.10-4: Insufficient schools for CUSD students in proximity to the SOI amendment area.	**Remainder Area** ***MM 4.10-8***: School Transportation Policies Specific Plans and/or other development proposals for the Remainder Area in the Center Unified School District should encourage an appropriate mechanism for transporting students to schools outside the SOI Amendment Area, in coordination with CUSD.	Prior to annexation within the Remainder Area Specific Plans, school transportation policies should be developed in coordination with CUSD.	Prior to annexation.	Applicants within the Remainder Area, tThe Planning Director, and Public Works Director shall ensure that student transportation issues are addressed in specific plans and design guidelines.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.10-5: Increased demand on library services.	**WRSP Area** ***MM 4.10-9***: Provide Library Branches, as Needed Pursuant to General Plan policy FB-4, library branches or components shall be expanded and/or constructed to serve the additional 20,810 residents in the WRSP. At the time of building permits, the capital facilities fee would be collected, a portion of which could fund the expansion of existing or construction of new library facilities. Special attention shall be paid to the locations of existing and planned library facilities, and their proximity to existing and future residents. Potentially significant adverse environmental impacts associated with construction of new library facilities or the expansion of existing facilities would be addressed on a project-specific basis at the time of construction or alteration.	Library branches or components shall be expanded and/or constructed to serve the additional residents in the WRSP.	Public Facility Fees will be collected at the time of Building Permit issuance.	The Parks, Recreation, and Library Director shall ensure that adequate library services are provided to meet the needs of the community
	Remainder Area ***MM 4.10-10***: Library Facilities Policies Specific Plans and/or other development proposals for the Remainder Area shall provide for library branches and/or components to be expanded and/or constructed to serve the additional residents in the Remainder Area. Developers shall pay a fair share fee to the City for the expansion of existing facilities or construction of new library facilities. Special attention shall be paid to the locations of existing and planned library facilities, and their proximity to existing and future residents.	Prior to annexation within the Remainder Area Specific Plans, development preparation of Specific Plan policies and Design Guidelines will be required.	Public Facilities Fees will be collected at the time of Building Permit issuance.	The Parks, Recreation, and Library Director shall ensure that adequate library services are provided to meet the needs of the community.
4.11 Public Utilities				
Impact 4.11-1: Availability of water supplies to meet demand in wet years.	**Remainder Area** ***MM 4.11-1***: Secure adequate water supply for wet and dry years Specific plans and/or development proposals for the Remainder Area shall identify a source of surface water supply sufficient to serve Remainder Area development. At this time, it is anticipated that the source would be the Sacramento River Water Reliability Project. Prior to the City's approval of any plan for the Remainder Area, the applicant shall demonstrate that the Sacramento River Water Reliability Project has been subjected to environmental review, approved and funded, and that its construction will be completed by the time that the water is needed for Remainder Area development. The applicant shall contribute a fair share toward the funding of the diversion project. As an alternative, an applicant may secure another source of surface water. Such a source would need to be legally available and sufficient to meet the demand of the project, consistent with the Water Forum Agreement and City policies and California Water Code Section 10910 *et seq.* and Government Code Section 66473.7 subject to a completed environmental review, approved by the agency with jurisdiction over the source, and funded.	The applicants shall identify a source of water that meets the demands of the project. The applicant shall demonstrate that water is available to meet demands of the project and contribute a fair share toward the funding of the Sacramento River Water Reliability Project.	Prior to approval of development entitlements. Fair share payments will be collected at the time of building permit issuance.	The Environmental Utilities Director shall review any development proposals within the Remainder Area to ensure adequate water supplies are available before development moves forward.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4-11.2: Availability of water supplies to meet demand in dry years.	**WRSP Area** ***MM 4.11-2***: Reduced groundwater extraction of agricultural land during dry years As a condition of approval of any Tentative Tract Map for the WRSP Area, and to supplement assured supplies, the City shall ensure that groundwater in the amount of 2,848 AF/year is available for use in the WRSP Area in dry years by reducing groundwater extraction at Reason Farms.	The City shall ensure that the volume of groundwater being extracted from Reason Farms is reduced by at least 2,848 AF/yr or more so that enough groundwater is available for use in the WRSP Area in dry years.	Prior to approval of any tentative tract map.	The Environmental Utilities Director shall monitor surface and groundwater supplies to ensure that there are adequate supplies, and reduce groundwater extraction at Reason Farms as needed for dry years.
	Remainder Area Refer to **MM 4.11-1**: *Secure adequate water supply for wet and dry years*			
Impact 4-11.3: Capacity of water treatment system to meet potable demand.	**Remainder Area** ***MM 4.11-3***: Expand treatment plant capacity Prior to City approval of any proposed development projects in the Remainder Area, the applicant shall demonstrate to the satisfaction of the Roseville Environmental Utilities Director that the Sacramento River Water Reliability Project water treatment facilities or substantially equivalent facilities approved by the City Council will provide the project with sufficient potable water by the time construction of the project is to begin. The development application for the project shall include a mechanism to fund the project's pro rata share of the construction costs of the Sacramento River Water Reliability Project water treatment facilities or alternative approved facilities.	The applicants shall demonstrate that the project will be provided with sufficient potable water by the time construction of the project is to begin. Refer also to MM 4.11-1.	Prior to approval of entitlements.	The Environmental Utilities Director shall review development proposals and ensure that sufficient water treatment capacity exists.
Impact 4.11-4: Extension of existing potable water distribution system.	**Remainder Area** ***MM 4.11-4***: Potable water storage facility policies Prior to approval of a Tentative Tract Map for the WRSP Area, the maximum amount of potable water storage needed to serve the Remainder Area shall be identified, taking into consideration WRSP Area demand, existing storage capacity, and planned phasing of WRSP Area development. The City shall ensure that a sufficient amount of land has been set aside at the proposed location for the WRSP Area storage facilities to allow for expansion that could accommodate Remainder Area storage needs. Either the booster pumping facility shall be designed to allow for possible expansion or, prior to Tentative Tract Map approval for the Remainder Area, an alternate site for the storage facility shall be identified within the Remainder Area. If an alternate site is selected, it would be subjected to environmental review and designated on preliminary land use plans. In addition, the size of the water line that would convey water to the tank(s) at an alternate site under low-demand condition shall be determined and evaluated.	The City shall identify the maximum amount of potable water storage needed to serve the Remainder Area. Prior to annexation within the Remainder Area Specific Plans, development of Specific Plan policies and Design Guidelines will be required. Plan review for the WRSP booster pumping facility shall include provisions for expansion to accommodate the Remainder Area.	Prior to approval of tentative tract map.	The Environmental Utilities Director shall ensure that adequate water storage is planned for.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.11-*7*: Construction or expansion of wastewater treatment facilities.	**WRSP Area** ***MM 4.11-5***: Treatment plant capacity Prior to obtaining building permits for development that would cause total wastewater flows from the WRSP Area to exceed 1.1 mgd, the applicants shall demonstrate that the PGWWTP will be expanded to 22.4 mgd. This includes obtaining all necessary permits to discharge the treated flow. The applicant shall also demonstrate that the timing of the plant expansion will be adequate to serve the WRSP Area without impeding other planned development assumed in the Wastewater Master Plan. Further, the applicants shall implement all relevant mitigation measures identified in the Wastewater Master Plan EIR. A list of mitigation measures applicable to this project area found in Appendix V of the EIR.	The applicants shall demonstrate that the PGWWTP will be expanded.	Prior to issuance of building permit that would cause total wastewater flows to exceed 1.1 mgd.	The Environmental Utilities Director shall monitor the capacity of the PGWWTP and ensure that expansion occurs in advance of the need.
	Remainder Area ***MM 4.11-6***: Treatment plant expansion policies Any proposal for development in the Remainder Area shall require that adequate treatment capacity at the PGWWTP be demonstrated and evaluated in an environmental document that tiers from this EIR in order to provide a project-level analysis. The environmental document shall be the responsibility of the applicant. Permits to discharge the treated flows shall also be obtained prior to the granting of any occupancy within the Remainder Area. Further, all relevant mitigation measures identified in the Wastewater Master Plan EIR shall be implemented. A list of mitigation measures applicable to this project area found in Appendix V of this EIR.	The applicants shall demonstrate that the PGWWTP will be expanded.	Prior to issuance of building permit that would cause total wastewater flows to exceed 1.1 mgd.	The Environmental Utilities Director shall monitor the capacity of the PGWWTP and ensure that expansion occurs in advance of the need.
Impact 4.11-8: Increased wastewater discharge regulated by the RWQCB.	**WRSP Area** Refer to **MM 4.11-5**: *Treatment plant capacity*			
	Remainder Area Refer to **MM 4.11-6**: *Treatment plant expansion policies*			

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.11-9: Increased demand for solid waste services at the landfill.	**WRSP Area** ***MM 4.11-7***: Expand the WRSL landfill Development in the WRSP Area and Remainder Area shall pay collection fees to the City of Roseville, a portion of which shall be used to service bonds necessary to fund landfill expansion. As a member of the WPWMA, the City of Roseville can support expansion of the landfill, as needed; however, the City cannot compel the WPWMA to expand the landfill. Expansion of the landfill would create environmental effects. Because plans for expansion of capacity beyond 2036 have not been developed, specific impacts cannot be identified at this time. Nonetheless, because of the expansion site's proximity to the existing landfill, it can be anticipated that impacts of an expansion would be similar to those attributed to the currently planned expansion. First, there would be construction-related impacts, such as air pollutant emissions and noise from construction equipment and erosion. In addition, agricultural land and biological resources, potentially including wetlands and Swainson's hawk foraging habitat, could be lost. Once constructed, the landfill could create additional odors, traffic, operational air emissions (due to increased vehicle trips to the landfill), increased emissions of landfill gas and combustion flare emissions, litter, night lighting and changes in visual character, degradation of surface and groundwater quality, and geologic hazards. These impacts would be similar to those of the existing landfill, and, where significant, could be reduced by implementation of mitigation measures already required of the landfill and the permitting process. However, there could be impacts, such as the loss of biological and agricultural resources, that would remain significant and unavoidable even after mitigation.	The City shall support the WPWMA efforts to expand the Western Regional Sanitary Landfill.	As needed.	As a member of the WPWMA, the City of Roseville shall encourage expansion of the WRSL.
	MM 4.11-8: Greenwaste receptacles All residences shall be provided with one 90-gallon greenwaste receptacle.	Appropriate greenwaste policies shall be implemented by the City.	Containers will be provided at the time of occupancy.	The Environmental Utilities Director shall ensure that the green waste program is implemented.
	Remainder Area Refer to **MM 4.11-7**: *Expand the WRSL landfill* ***MM 4.11-9***: Greenwaste policies Specific Plans and/or other development proposals for the Remainder Area shall require that all residences be provided with greenwaste containers.	Appropriate greenwaste policies shall be implemented by the City and greenwaste containers provided to customers.	Containers will be provided at the time of occupancy.	The Environmental Utilities Director shall ensure that the green waste program is implemented

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4-11.10: Increased demand for solid waste services at the MRF.	**WRSP Area** ***MM 4.11-10***: Increase MRF capacity Operations at the MRF could be expanded by increasing the number of processing lines. Like expansion of the landfill, increasing MRF capacity would be under the jurisdiction of the WPWMA. The WPWMA can and should increase the capacity of the MRF and the City should advocate that it do so. Specific impacts would need to be identified and evaluated by the WPWMA if it decided to further increase the capacity of the MRF.	The City shall support the WPWMA efforts to expand Materials Recovery Facility at the Western Regional Sanitary Landfill.	As needed.	As a member of the WPWMA, the City of Roseville shall encourage expansion of the WRSL
	Remainder Area Refer to **MM 4.11-10**: *Increase MRF capacity*			
Impact 4.11-11: Construction debris demand for solid waste services.	**WRSP Area** Refer to **MM 4.11-7**: *Expand the WRSL landfill* and **MM 4.11-10**: *Increase MRF capacity* ***MM 4.11-11***: Divert construction debris The applicant shall ensure a 50 percent reduction in the development's construction waste stream. In applicant's contracts with construction contractors and their subcontractors, the applicant shall require that contractors reduce construction waste stream by 50 percent. The applicants shall further require that contractors and subcontractors submit records of diversion and disposal to the City's Environmental Utilities Department in order to verify compliance with this requirement.	The City shall condition projects and the applicants and their construction contractors shall ensure a 50 percent reduction in the project's construction waste stream as part of specifications in general construction and building plans. Proof of waste stream diversion shall be submitted to the Environmental Utilities Department.	Prior to issuance of building permit	The Environmental Utilities Director and the Public Works Director will ensure that appropriate measures are reflected in all general construction and building plans. The Building Official shall ensure that construction contractors comply with the measures. The Code Enforcement Inspector shall enforce the City's regulations.
	Remainder Area *Refer to* ***MM 4.11-7***: Expand the WRSL landfill *and* ***MM 4.11-10***: Increase MRF capacity ***MM 4.11-12***: Construction debris policies Specific Plans and/or other development proposals for the Remainder Area shall provide for diversion and recycling of construction debris.	Prior to annexation within the Remainder Area Specific Plans or other development proposals shall provide for diversion and recycling of construction debris.	Identification of measures as part of the specific plan process.	The Environmental Utilities Director and the Public Works Director will ensure that appropriate measures are reflected in the specific plans.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.11-12: Increased demand for electricity.	**Remainder Area** ***MM 4.11-13***: Electric facilities policies Specific Plans and/or other development proposals for the Remainder Area shall identify a substation or substations and appropriately sized transmission lines, as determined by the City. Roseville Electric shall monitor electrical use in the Sphere of Influence area, and construct these facilities as needed. At the time specific development is proposed within the Remainder Area, additional environmental review would be required which analyzes electrical facilities. Any proposal for development in the Remainder Area shall demonstrate that these facilities will be available to serve the proposed development prior to occupation.	Prior to annexation within the Remainder Area Specific Plans, development of Specific Plan policies and Design Guidelines will be required. The City shall ensure that appropriately sized electric facilities are available to serve the project.	Prior to annexation.	The Director of Roseville Electric will review development proposals and ensure that there is adequate utility service.
4.12 Hydrology, Water Quality and Groundwater				
Impact 4.12-1: Changes in the rate of stormwater runoff (peak flows) through the development of new impervious surfaces.	**Remainder Area** ***MM 4.12-1***: Prepare site-specific drainage study If a larger detention basin near the main branch of Curry Creek is used for the Remainder Area, and includes flows for the WRSP Area, Specific Plans and/or other development proposals for the Remainder Area shall prepare a site-specific drainage study. The study shall identify appropriate sizing and location to ensure that Remainder Area flows, in combination with flows generated in the WRSP Area, can be accommodated in the larger basin. The study shall also be used to identify features that will limit peak flow runoff from the areas drained to Curry Creek to pre-development levels per the PCFCWCD SWMM and City standards. The study shall also be used to demonstrate the larger basin will not cause or exacerbate downstream flooding conditions. Specific Plans and/or other development proposals for the Remainder Area, shall include a site-specific drainage study prepared in accordance with PCFCWCD SWMM and City of Roseville standards to identify on-site storm drainage features that will limit peak flow runoff from the area that drains to Curry Creek to pre-development levels, provided it can be demonstrated that such features will not cause or exacerbate flooding conditions in the SOI Amendment Area or at downstream locations outside the SOI Amendment Area. The drainage study shall be submitted to the PCFCWCD and City Roseville for review. If a basin in the Remainder Area is used to store flows generated by sheds C-WP7 and C-WP8 in the WRSP Area, in addition to Remainder Area-generated flows, the drainage study shall ensure that sufficient capacity is provided to manage total flows into the basin.	Prior to annexation within the Remainder Area Specific Plans, the applicants shall prepare drainage studies.	Prior to annexation as part of the specific plan process. Payment of the Regional Drainage Fee at the time of Building Permit issuance.	The Director of Public Works shall ensure that drainage issues are adequately addressed. The Environmental Utilities Director and NPDES Coordinator will review proposals to ensure adequate water quality measures are implemented.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
Impact 4.12-2: Increase in the amount of surface runoff, which would exceed the capacity of existing storm drainage systems and increase the potential for downstream flooding.	**WRSP Area** ***MM 4.12-2***: Pay fair-share of Roseville regional stormwater retention facility improvements The City shall collect the Pleasant Grove Drainage fee from the applicants prior to the approval of each building permit, which would cover the cost of retention for that development's portion of the Roseville regional retention basin at Reason Farms.	The City shall collect the Pleasant Grove Drainage fee from applicants.	Prior to Building Permit Issuance.	The Public Works Director shall monitor and ensure that the Pleasant Grove drainage fee is collected.
	Remainder Area ***MM 4.12-3***: Retention Policies Specific Plans and/or other development proposals for the Remainder Area shall demonstrate, through the preparation of technical engineering studies, that the increased volume of stormwater runoff from the SOI Amendment Area, which includes the WRSP Area, can be accommodated in the approved regional stormwater retention facility. The results of the study shall be submitted to the City of Roseville Public Works Department for review and concurrence. The facility shall be expanded as necessary, funded through fair-share contributions by project developers.	Prior to annexation within the Remainder Area, technical engineering studies of regional stormwater retention facilities shall be prepared by the applicants.	Prior to annexation.	The Public Works Director shall monitor and ensure that drainage measures are implemented.
Impact 4.12-3: Placement of fill or structures in 100-year floodplain could affect water surface elevations, which could increase the risk of flooding.	**Remainder Area** ***MM 4.12-4***: Floodplain Policies Specific Plans and/or other development proposals for the Remainder Area shall identify the 100-year floodplain for each location that could be affected by fill placement or installation of structures to ensure water surface elevations estimated in the Master Drainage Study would not be measurably increased. If measurable increases are identified, redesign or relocation of the fill or structures shall be considered. In addition, the recalculated water surface elevations shall be used to determine what improvements, if any, are necessary to provide adequate mitigation so that off-site risk of flooding is not increased as a result of Remainder Area development, in combination with the WRSP Area development. Those improvements shall be required to be constructed as a condition of approval of the proposed development.	Prior to annexation within the Remainder Area, the applicants shall prepare drainage studies that identify the 100-year floodplan.	Prior to annexation.	The Public Works Director shall monitor and ensure that drainage measures are implemented.
Impact 4.12-6: Groundwater use during dry years.	**WSRP Area** Refer to **MM 4.12-2**: *Pay fair-share of Roseville regional stormwater retention facility improvements*			

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
4.13 Aesthetics and Visual Resources				
Impact 4.13-2: New sources of light and glare.	**WRSP Area** ***MM 4.13-1(a)***: Restrict High-Watt Light Usage and Hours for Park Facilities In order to reduce the effects of nighttime illumination from development associated with the WRSP, high-powered floodlights will be discouraged for recreational or other facilities within the WRSP. In addition, such lights shall not be used later than 11:00 p.m. if located within 300 feet of residences. The developers shall be required to disclose to all adjacent residential areas that a regional park is located nearby that will contain outdoor lighting.	The City shall implement policies to reduce the nuisance effects of nighttime/daytime and/or high-intensity illumination from the project.	Prior to Building Permit issuance.	The Parks and Recreation Director shall review the proposed park plans and ensure that nighttime lighting is directed away from residences and open space corridors.
	MM 4.13-1(b): Site High-Intensity Lighting so as to Minimize Nuisance High-Intensity light producing uses, such as stadiums and ball fields, within the WRSP Area shall be located and oriented to minimize visual impacts on adjacent residential areas located within 300 feet. Lighting for stadiums and ball fields should be shielded and designed to distribute light in the most effective and efficient manner, using the minimum amount of light to achieve the necessary illumination for the use, as defined by suggested lighting standards for competitive play. The developers shall be required to disclose to all adjacent residential areas that regional park/school uses are located nearby that will contain outdoor lighting.	The City shall implement policies to reduce the nuisance effects of nighttime/daytime and/or high-intensity illumination from the project.	Prior to Building Permit issuance.	The Parks and Recreation Director shall review the proposed park plans and ensure that nighttime lighting is directed away from residences and open space corridors.
	MM 4.13-1(c): Use Low-Glare Materials for New Development In order to reduce the effects of daytime glare from development of commercial, office, and industrial uses within the WRSP, building developers shall make use, when feasible, of low-glare materials.	The applicants shall ensure that development proposals are consistent with the mitigation and the WRSP Design Guidelines.	Prior to Building Permit issuance.	The Planning Director shall review plans to ensure consistency with the mitigation measures and the specific plan and design guidelines to reduce light and glare impacts.City
	MM 4.13-1(d): Avoid Light Spill Over Into Riparian Habitat Outdoor lighting shall be placed, designed, and directed so as to avoid light spill over into the riparian habitat of Pleasant Grove or Curry Creek and Open Space Preserve Areas.	The applicants shall ensure that development proposals are consistent with the mitigation and the WRSP Design Guidelines.	Prior to the Tentative Map, or as part of the Design Review Permit process.	The Planning Director shall review plans to ensure consistency with the mitigation measures and the specific plan and design guidelines to reduce light and glare impacts.

Table 1 Mitigation Monitoring Program

Impact	*Mitigation Measure*	*Implementation*	*Timing*	*Reviewing Party*
	Remainder Area ***MM 4.13-2***: Light and Glare Policies Specific Plans and/or other development proposals for the Remainder Area shall include policies or conditions of project approval that reduce the effects of nighttime illumination and glare from the Remainder Area. The Specific Plans and/or development proposals shall include policies and/or conditions that require that lighting for stadiums and ball fields be shielded and designed to distribute light in the most effective and efficient manner, using the minimum amount of light to achieve the necessary illumination for the use, and that hours of operation be limited to avoid nuisances. In addition, these policies and/or conditions should ensure that outdoor lighting does not spill over into creeks or open space preserves, and that low-glare materials are used on office, commercial and industrial buildings.	Prior to annexation within the Remainder Area Specific Plans, development of Specific Plan policies and Design Guidelines, and environmental review will be required to more specifically identify impacts and mitigation measures.	Measures would be identified at the time Specific Plans and Design Guidelines are prepared for the Remainder Area.	The Planning Director shall review plans to ensure consistency with the mitigation measures and the specific plan and design guidelines to reduce light and glare impacts.

Chapter 1 INTRODUCTION

1.1 PROJECT BACKGROUND

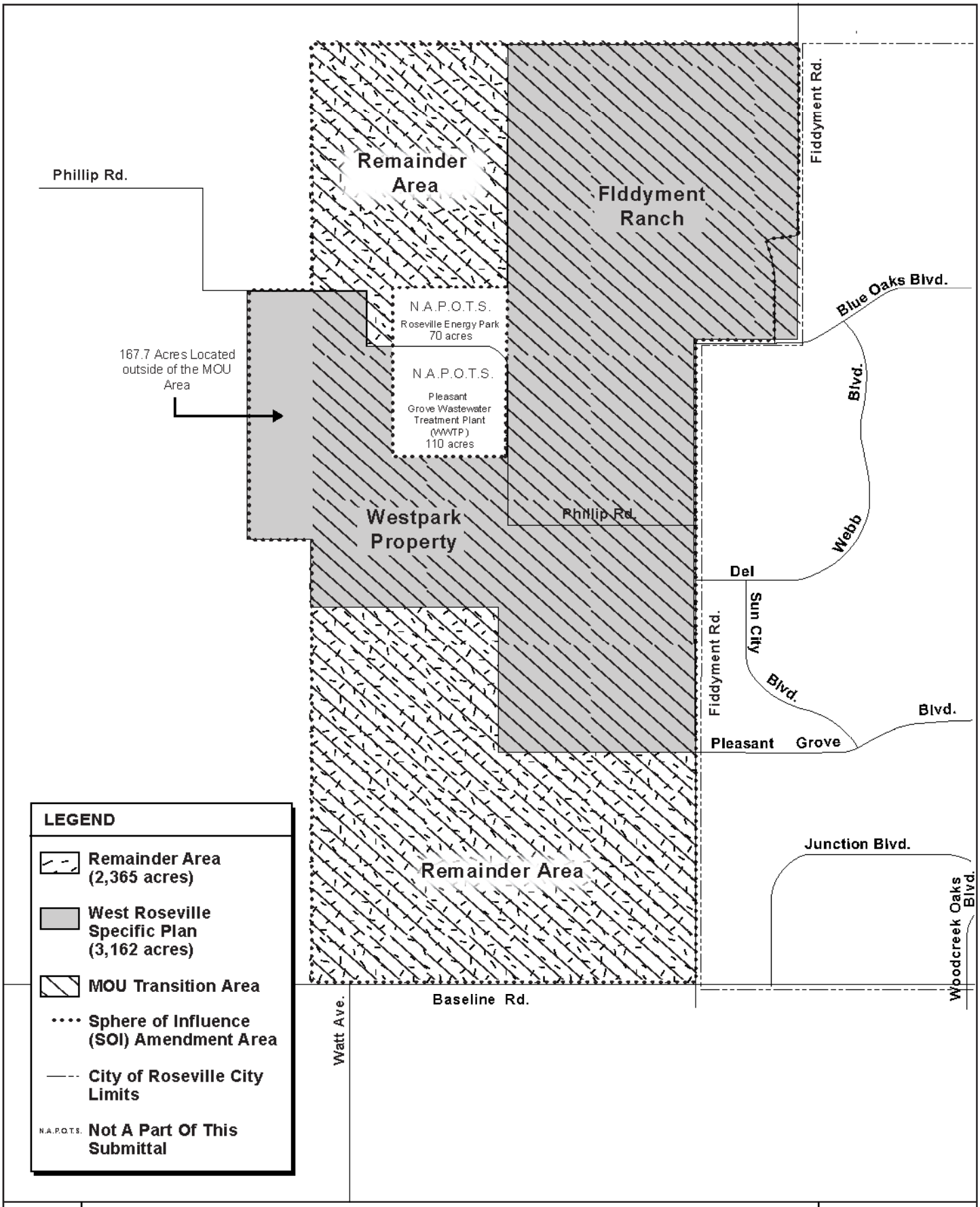
This Environmental Impact Report (EIR) examines the potential effects of a proposed project that includes (1) amending a 5,527-acre area immediately west of the City of Roseville (City) corporate boundaries to bring it into the City's sphere of influence (SOI); (2) adopting the West Roseville Specific Plan (WRSP), which covers a 3,162-acre portion of the 5,527-acre SOI Amendment Area; and (3) annexing the WRSP Area into the City's jurisdiction. While no specific plan for development of the remaining 2,365 acres (Remainder Area) within the 5,527-acre SOI Amendment Area is proposed at this time, assumptions regarding the general density and intensity of development have been made to allow a programmatic analysis of the environmental impacts that could occur as a result of development of the entire SOI Amendment Area. Refer to Figure 1-1 (SOI Amendment Area) for an illustration of the WRSP Area (consisting of Fiddyment Ranch and the Westpark properties), the Remainder Area, and the entire SOI Amendment Area.

The following terms are used throughout this EIR to refer to the areas under consideration:

- SOI Amendment Area 5,527 acres — Includes the WRSP Area and the Remainder Area, but does not include a 70-acre City-owned property or the 110-acre Pleasant Grove Wastewater Treatment Plant (PGWWTP)[2]
- WRSP Area 3,162 acres — Composed of Fiddyment Ranch and the Westpark properties. Of the 3,162 acres, only 2,994 are located in the MOU Transition Area.[3] The remaining 168 acres are located outside of the MOU Transition Area. The limits of the MOU Transition Area are illustrated by both Figures 1-1 and 1-2.
- Remainder Area 2,365 acres — Composed of land located north and south of the WRSP Area and within the SOI Amendment Area. Does not include the 180-acre City-owned property containing the PGWWTP and the buffer property to the north

[2] The City property is located adjacent to the WRSP Area, west of the Fiddyment Ranch property and northeast of the Westpark property. Within this area is the City's PGWWTP, located on approximately 110 acres and a City-owned 70-acre buffer property to the north.

[3] In 1997, the City of Roseville entered into a Memorandum of Understanding (MOU) to foster cooperative land use planning. The MOU applies to a "Transition Area" west of Fiddyment Road and north of Baseline Road. The City of Roseville owns approximately 180 acres within the MOU Transition Area that are not part of the proposed SOI Amendment (because the City Property is already incorporated), as shown on Figure 1-1.


Remainder Area
Fiddyment Ranch
Fiddyment Rd.
Phillip Rd.
Blue Oaks Blvd.
N.A.P.O.T.S.
Roseville Energy Park
70 acres
N.A.P.O.T.S.
Pleasant Grove Wastewater Treatment Plant (WWTP)
110 acres
167.7 Acres Located outside of the MOU Area
Blvd.
Webb
Westpark Property
Phillip Rd.
Del
Sun City
Fiddyment Rd.
Blvd.
Blvd.
Pleasant Grove
Junction Blvd.
Remainder Area
Woodcreek Oaks Blvd.
Baseline Rd.
Watt Ave.
LEGEND
Remainder Area (2,365 acres)
West Roseville Specific Plan (3,162 acres)
MOU Transition Area
Sphere of Influence (SOI) Amendment Area
City of Roseville City Limits
N.A.P.O.T.S. Not A Part Of This Submittal
N
10659-00
FIGURE 1-1
SOI Amendment Area
Not to Scale
Source: Wade Associates, 2003; EIP Associates, 2003
City of Roseville
EIP ASSOCIATES

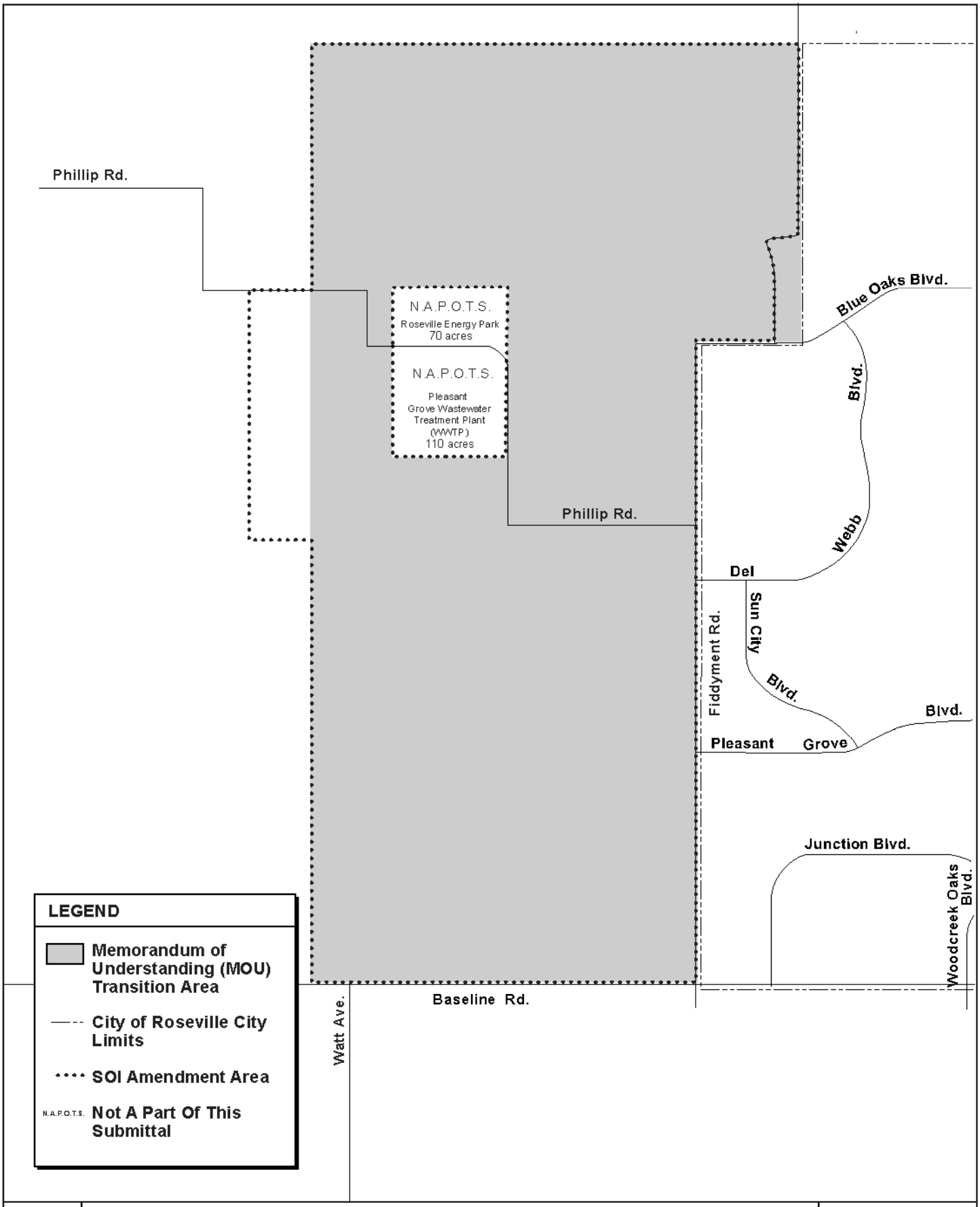


FIGURE **1-2**

MOU Transition Area

Not to Scale

10659-00

Source: Wade Associates, 2003; EIP Associates, 2003

City of Roseville

Figure 2-1 (Regional Location and Project Vicinity), which is provided in Chapter 2 (Project Description) of this EIR, provides an illustration of the proposed project's location.

1.2 PURPOSE AND INTENDED USE OF THE EIR

The City of Roseville has prepared this EIR for the following purposes:

- To satisfy the requirements of CEQA, the CEQA Guidelines, and the City's procedures for implementing CEQA
- To inform the general public, the local community, responsible and interested public agencies, and the City's decision-making bodies (e.g., Planning Commission, Public Utilities Commission, Transportation Commission, and Parks and Recreation Commission) regarding the potential environmental effects resulting from implementation of the proposed project, as well as possible measures to mitigate those effects and alternatives to the project
- To enable the City to consider environmental consequences when deciding whether to approve the proposed project
- To provide a basis for the preparation of subsequent environmental documentation for future development in the Remainder Area
- To serve as a source document for responsible agencies to issue permits and approvals, as required (e.g., Placer County Local Agency Formation Commission [LAFCO])

In summary, this document is intended to provide decision-makers and the public with information that enables them to intelligently consider the environmental consequences of the proposed action. It identifies significant or potentially significant environmental effects and ways in which those impacts can be reduced to less-than significant levels, whether through the imposition of mitigation measures or through the implementation of specific alternatives to the project. In a practical sense, EIRs function as a technique for fact-finding, allowing an applicant, the public, and agency staff an opportunity to collectively review and evaluate baseline conditions and project impacts through a process of full disclosure. Additionally, this EIR provides the primary source of environmental information for the lead agency to consider when exercising any permitting authority or approval power directly related to implementation of this project.

1.3 TYPE OF EIR

This EIR provides a project-level analysis for the WRSP Area and a programmatic analysis of the SOI Amendment area as further described below.

The California Environmental Quality Act (CEQA) Guidelines (set forth in Title 14 of the California Code of Regulations) defines a project EIR as "focusing primarily on the changes in the environment that would result from project development." As stated in Section 15161 of the CEQA Guidelines, a project-specific EIR is required to "examine all phases of the project including planning, construction, and operation." A project-specific analysis has been prepared for the WRSP because the Specific Plan and associated studies and reports contain the necessary detailed information.

Conversely, a program EIR, as defined by the CEQA Guidelines Section 15168:

> …is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:
>
> (1) Geographically,
>
> (2) As logical parts in the chain of contemplated actions,
>
> (3) In connection with rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
>
> (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in several different ways.

The WRSP and Remainder Areas are geographically related. Although no specific land use plans for developing the Remainder Area have been submitted to the City, its development is recognized as the logical progression of growth in the City if the WRSP is approved and developed. In addition, the WRSP Area and Remainder Area are related geographically. The dual-level analysis ensures that the effects of developing the WRSP Area and Remainder Area are not segmented, while recognizing that the two components are at different stages of planning.

With respect to future development projects that may be proposed in the Remainder Area, Section 15168(c) of the CEQA Guidelines states that subsequent activities should be examined in light of the Program EIR to determine whether additional environmental documentation must be prepared. If a later activity would have significant effects that were not examined in the Program EIR, subsequent environmental documentation must be prepared, consistent with Sections 15162 through 15164 of the CEQA Guidelines; in effect, the subsequent environmental documentation would be "tiered" from the Program EIR. As established by Section 21068.5 of CEQA, tiering refers to coverage of general matters and environmental effects in an environmental impact report prepared for a policy, plan, program, or ordinance followed by narrower or site-specific environmental documents that (1) incorporate, by reference, the discussion in any prior environmental impact report and (2) concentrate on the environmental effects that are capable of being mitigated or were not analyzed as significant effects on the environment in the prior environmental impact report.

If any subsequent development proposal would not result in new effects or the need for new mitigation measures, the subsequent activity could rely on the environmental analysis provided in the Program EIR, and no additional environmental documentation would be required.

1.4 LEAD, RESPONSIBLE, AND TRUSTEE AGENCIES

As required by CEQA and the CEQA Guidelines, this EIR defines lead, responsible, and trustee agencies. The City of Roseville is the lead agency for the project because it holds principal responsibility for approving the project. A responsible agency refers to a public agency other than the lead agency that has discretionary approval over the project. Responsible agencies for the proposed project include, but are not necessarily limited to, the LAFCO, the California Regional Water Quality Control Board, the California Water Resources Control Board, the County of Placer, and the Placer County Air Pollution Control District. A trustee agency is defined as a state agency that has jurisdiction by law over natural resources that are held in trust for the people of the state. The U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), and U.S. Army Corps of Engineers are trustee agencies for this project.

1.5 SCOPE OF THE EIR

The scope of the EIR includes environmental issues determined to be potentially significant by the Notice of Preparation (NOP), responses to the NOP, and scoping discussions among the public, consulting staff, and the City of Roseville. The NOP and comment letters received during the NOP review period are included in Appendix A of this EIR. The NOP identified potentially significant impacts on the following issue areas associated with the construction and/or operation of the proposed project, which are discussed in detail in this EIR:

- Land Use and Agricultural Resources
- Population, Employment, and Housing
- Transportation and Circulation
- Air Quality
- Noise
- Geology, Soils, and Seismicity
- Biological Resources
- Cultural Resources
- Hazardous Materials and Public Safety

- Public Services
- Public Utilities
- Hydrology and Water Quality
- Aesthetics and Visual Resources

This EIR evaluates the direct, indirect, and cumulative impacts resulting from planning, construction and operation of the proposed project using the most current information available and in accordance with the provisions set forth in the CEQA Guidelines. In addition, the EIR recommends feasible mitigation measures, where possible, and project alternatives that would reduce or eliminate adverse environmental effects. To assist in evaluating potential impacts associated with expansion of the SOI boundary, general land use and infrastructure assumptions have been projected for the Remainder Area based on a density of development similar to that proposed by the WRSP. It should be noted that the land use assumptions for the Remainder Area are likely conservative (i.e., less development may ultimately be allowed) because physical constraints have not been included in the land use assumptions.

The Alternatives chapter of the EIR was prepared in accordance with Section 15126.6 of the CEQA Guidelines. The alternatives analyzed in this EIR include the No Project/Reasonably Foreseeable Development alternative, Open Space alternative, Increased Intensity alternative, Reduced Development alternative, and an Off-Site alternative. The Alternatives Analysis identifies the "environmentally superior" alternative as required by CEQA.

In preparing the EIR, pertinent City policies and guidelines, existing EIRs, and background documents prepared by the City were all evaluated for its applicability to the proposed project. A complete list of references is provided in Chapter 9 (References) of this EIR.

1.6 ENVIRONMENTAL REVIEW PROCESS

This EIR has been prepared to meet all of the substantive and procedural requirements of CEQA (California Public Resources Code [PRC] Section 21000 *et seq.*) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 *et seq.*). As the Lead Agency, the City of Roseville has primary responsibility for conducting the environmental review and approving or denying the project.

As a first step in complying with the procedural requirements of CEQA, the City examined whether any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment. For this project, it was determined that there were potentially significant impacts and the Notice of Preparation (NOP) indicated that an EIR would analyze these impacts.

The City filed a NOP with the California Office of Planning and Research as an indication that an EIR would be prepared. In turn, the NOP was distributed to involved public agencies and interested parties for a 30-day public review period, which began on August 16, 2002, and ended on September 15, 2002. The purpose of the public review period was to solicit comments on the scope and content of the environmental analysis to be included in the EIR.

During preparation of the EIR, agencies, organizations, and persons who the City believed might have an interest in this project were specifically contacted. Information, data, and observations from these contacts are included in the EIR. Agencies or interested persons who did not respond during the public review period for the NOP will have an opportunity to comment during the public review period for the EIR, as well as at subsequent hearings on the project.

This EIR or a notice of availability of this EIR for public review has been distributed to agencies that have commented on the NOP, surrounding cities, counties, and interested parties for a 45-day public review period in accordance with Section 15087 of the State CEQA Guidelines, which began on September 15, 2003, and ends on October 29, 2003. During the 45-day public review period, the EIR is available for review at the following locations:

City of Roseville Planning Department
311 Vernon Street
Roseville, CA 95678
Hours: Monday–Friday 8 A.M.–5 P.M.

Roseville Main Library
225 Taylor Street
Roseville, CA 95678
(916) 774-5221
Hours: Monday–Thursday 9 A.M.–9 P.M.
Friday and Saturday 9 A.M.–5 P.M.
Sunday CLOSED

Maidu Branch Library
1530 Maidu Drive
Roseville, CA 95661
(916) 774-5900
Hours: Tuesday and Wednesday NOON–8 P.M.
Thursday–Saturday 9 A.M.–5 P.M.
Sunday and Monday CLOSED (except for holiday weekends, CLOSED Saturday–Monday)

Auburn-Placer County Library
350 Nevada Street
Auburn, CA 95603
Hours: Monday, Tuesday, Wednesday 10 A.M.-6 P.M.
Thursday 10 A.M.-6 P.M.
Friday, Saturday 10 A.M.-5P.M.
Sunday CLOSED

Interested parties may provide comments on the EIR in written form during the 45-day public comment period. Comments should be addressed to

City of Roseville Planning Department
311 Vernon Street
Roseville, CA 95678
Attn: Kathy Pease

Upon completion of the 45-day public review period, written responses to all significant comments raised with respect to environmental issues discussed in the EIR will be prepared and incorporated into the Final EIR (FEIR). Written responses to comments received from any State agencies will be made available to these agencies at least ten days prior to the public hearing during which the certification of the FEIR will be considered. These comments and their responses will be included in the FEIR for consideration by the City Council, as well as any other public decision-makers. The process will culminate with City Council hearings to consider certification of an FEIR and to decide on whether to approve the proposed project.

According to PRC Section 21081, the Lead Agency must make specific Findings of Fact (Findings) before approving the FEIR when the EIR identifies significant environmental impacts that may result from a project. The purpose of the Findings is to establish the connection between the contents of the FEIR and the action of the Lead Agency with regard to approval or rejection of the project. Prior to approval of a project, one of three findings must be made, as follows:

- Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the significant environmental effect as identified in the FEIR.
- Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the FEIR.

Additionally, according to PRC Section 21081.6, for projects in which significant impacts will be avoided by mitigation measures, the Lead Agency must include a mitigation monitoring program (MMP). The purpose of the MMP is to ensure compliance with required mitigation during implementation of the project.

However, environmental impacts may not always be mitigated to a less-than-significant level. When this occurs, impacts are considered significant and unavoidable. If a public agency approves a project that has significant and unavoidable impacts, the agency shall state in writing the specific reasons for approving the project based on the FEIR and any other information in the public record. This is termed a "Statement of Overriding Considerations" and is used to explain the specific reasons why the benefits of a proposed project make its unavoidable environmental effects acceptable. The statement is prepared, if required, after the FEIR has been completed, yet before action to approve the project has been taken.

1.7 EIR ADEQUACY

The level of detail contained throughout this EIR is consistent with Section 15151 of the CEQA Guidelines and recent court decisions, which provide the standard of adequacy on which this document is based. The Guidelines state as follows:

An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information, which enables them to make a decision that intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good faith effort at full disclosure.

1.8 DOCUMENT ORGANIZATION

This EIR has been designed for easy use and reference. To help the reader locate information of particular interest, a brief summary of the contents of each section of the EIR is provided. This report includes eight principal parts:

- **Summary of Impacts and Mitigation Measures**—Presents an overview of the results and conclusions of the environmental evaluation. This section identifies project impacts and available mitigation measures for use by the City in reviewing the project and establishing conditions under which the project may be implemented. It also identifies the level of significance of project-related impacts both before and after the imposition of mitigation measures.

- **Introduction**—Provides a brief project background and a description of the EIR, including its purpose, intended use, type, scope, and standards for adequacy; an identification of lead, responsible, and trustee agencies; a description of the environmental review process; and a summary of how the document is organized.
- **Project Description**—Includes a discussion of the location of the project site; a statement of project objectives; a general description of the project's technical and environmental characteristics, including proposed plans for development of the area; and required governmental approvals.
- **Environmental Analysis**—Includes a topic-by-topic analysis of baseline environmental conditions and impacts that would or could result from expansion of the City's Sphere of Influence boundaries and implementation of the WRSP and future development in the Remainder Area. It also identifies mitigation measures that would reduce the level of significance of environmental impacts. The results of field visits, data collection and review, and agency contacts are included in that analysis.
- **CEQA Considerations**—Includes a discussion of issues that CEQA requires to be addressed in an EIR: significant unavoidable adverse impacts, irreversible environmental changes, growth inducement, and cumulative impacts.
- **Alternatives**—Includes an assessment of alternative methods for accomplishing the basic objectives of the proposed project. This assessment, required by CEQA, must provide adequate information for decision-makers to make a reasoned choice among alternatives based on the environmental impacts of the Proposed Project and project alternatives.
- **Planning Considerations**—Provides an analysis of consistency with applicable plans, policies, and agreements.
- **Appendices**—Contain a number of reference items providing support and documentation of the analysis performed for this report.

Chapter 2 PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND PROJECT SUMMARY

The proposed project site lies in a rural agricultural area in western Placer County. It is bounded by the City of Roseville boundaries and Fiddyment Road to the east, Baseline Road to the south, and vacant pasture/dry farmland to the north and west. The project site is situated approximately eight and a half miles west of Interstate 80 (I-80) and is approximately six and a half miles west of the Blue Oaks Boulevard interchange on SR-65. The project site is located north of the City of Citrus Heights (in Sacramento County) and south of the City of Lincoln (in Placer County). The project location is illustrated by Figure 2-1 (Regional Location and Project Vicinity).

This Environmental Impact Report (EIR) examines the potential effects of a proposed project that includes (1) amending a 5,527-acre area immediately west of the City of Roseville (City) corporate boundaries to bring it into the City's sphere of influence (SOI); (2) adopting the West Roseville Specific Plan (WRSP), which covers a 3,162-acre portion of the 5,527-acre SOI Amendment Area; and (3) annexing the WRSP Area into the City's jurisdiction. While no specific plan for development of the remaining 2,365 acres (Remainder Area) within the 5,527-acre SOI Amendment Area is proposed at this time, assumptions regarding the general density and intensity of development have been made to allow a programmatic analysis of the environmental impacts that could occur as a result of development of the entire remainder of the SOI Amendment Area that is not in the WRSP Area.

In this EIR, the term "SOI Amendment Area" is used to refer to the project site. The SOI Amendment Area surrounds, but does not include, City-owned property consisting of the 110-acre Pleasant Grove Wastewater Treatment Plant (PGWWTP) and a 70-acre buffer area to the north of the PGWWTP.

2.2 STUDY AREA CHARACTERISTICS

Complete descriptions of the characteristics of the WRSP and Remainder Areas can be found in Chapter 4 (Environmental Analysis) of this EIR for the particular resource or subject area of interest.

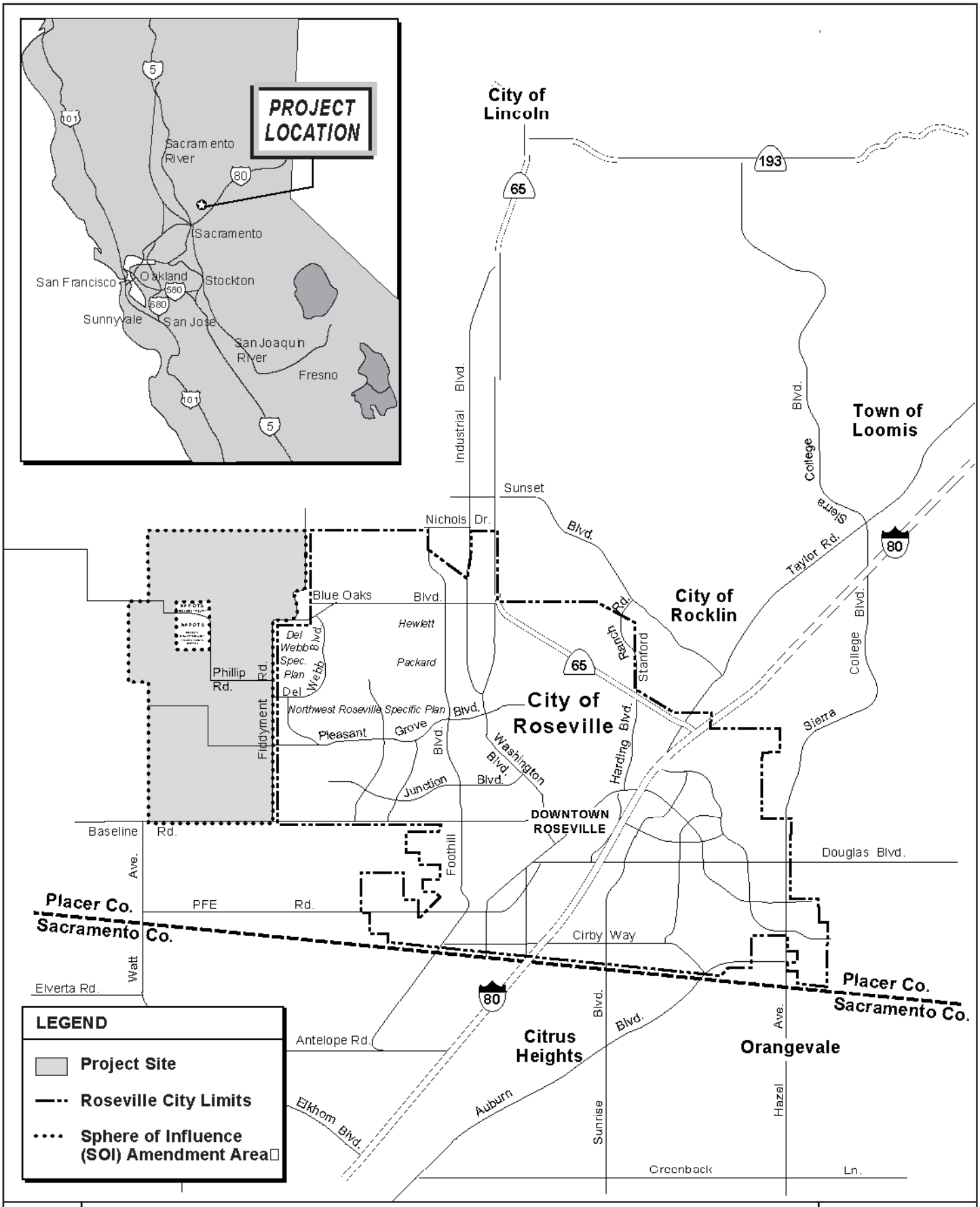


FIGURE **2-1**

Regional Location and Project Vicinity

Not to Scale

10659-00

Source: EIP Associates, 2003

City of Roseville

2.2.1 West Roseville Specific Plan Area

Ownership

As illustrated by Figure 2-2 (Land Ownership), the 3,162-acre WRSP Area consists of properties under the ownership and/or control of two development entities. A portion of the WRSP Area is owned by 1600

Placer Investors, Inc., and managed by Westpark Associates (1,483-acre Westpark property). The 1,679-acre Fiddyment Ranch property, located within the northeast portion of the site, is controlled by Signature Properties and held under six separate ownerships. Signature Properties holds contracts to purchase these properties as managing partner of West Roseville Development Company, Inc. The total WRSP Area includes 3,162 acres.

Existing Uses

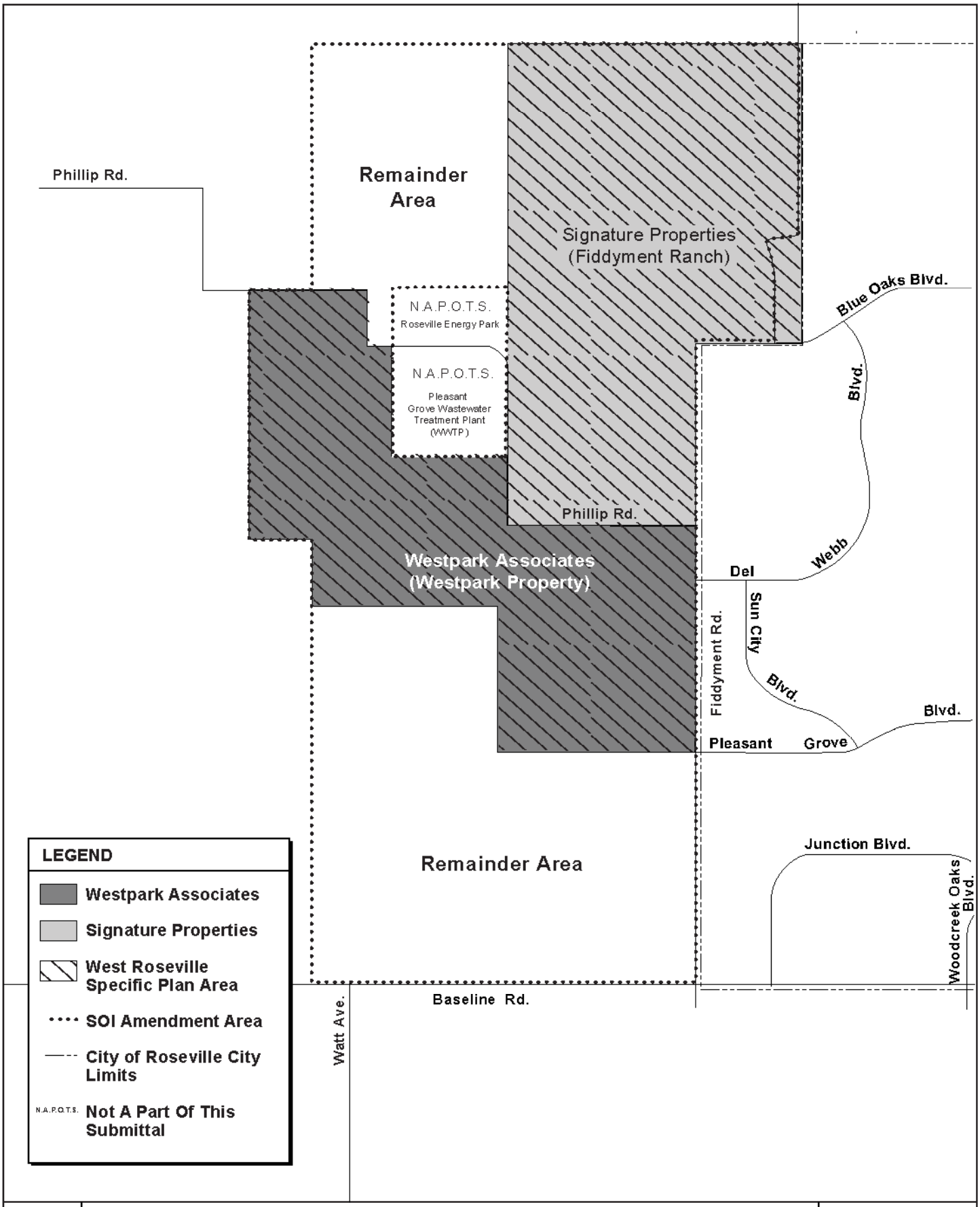
The majority of the WRSP Area is undeveloped and contains nonnative annual grasslands. The topography of the site is relatively flat, with areas of rolling terrain. Pleasant Grove Creek, Curry Creek, and Kaseberg Creek traverse a portion of the WRSP Area. Native oaks are present along the riparian stream corridors in the Fiddyment Ranch property. One native oak tree is present within the Westpark property. Wetland areas are dispersed throughout the WRSP Area, with the greatest concentration located in the northwest corner of the Fiddyment Ranch property.

The predominant land use is seasonal livestock grazing. In the past, portions of the WRSP Area have been used for grazing, limited dry farming, and poultry operations.

Fiddyment Ranch is developed with five small areas of residential/commercial operations that include the "Old Homestead," the John Corin House, the Eric Fiddyment house, the Eric Fiddyment construction support operations, or "Mill Field," and the Pistachio Orchard Office. Various structures and buildings associated with historic and current uses are located in these five areas. There are no structures located within the Westpark property.

Existing Zoning

The WRSP Area is located in an unincorporated area of Placer County. The Placer County General Plan currently designates the WRSP Area for Agriculture/Timberland, 80-acre minimum. The WRSP Area is designated in the Placer County Zoning Ordinance as Farm Combining Building Site, 80-acre (FB-X-80).



10659-00

FIGURE **2-2**

Land Ownership

Not to Scale

Source: Signature Properties and Westpark Associates, 2003; EIP Associates, 2003 City of Roseville

The following are permitted uses in the FB-X-80 zone, either by right or with the issuance of a conditional use permit:

- Single-family dwelling; keeping of poultry, rabbits or similar livestock; farming, dairies, animal husbandry; crop and tree farming; apiaries; aviaries; stands exclusively for the sale of products produced on the premises; stables and riding academies; communications equipment building, distribution substation; small livestock farming; greenhouse; residential care homes for six (6) or fewer persons; large- and small-family daycare homes
- Buildings or structures, including housing for agricultural workers, garages and implement shelters, customarily associated with an accessory use to the uses listed above; storage of petroleum products for use of the premises, but not for resale; home occupation; commercial breeding, feeding and managing, and sale on the premises of fish; guest houses; commercial vehicle storage (one vehicle, 2.3 acre minimum)
- Duplexes; tract offices; golf courses; public or quasi-public uses including fire houses, school accredited to the State school system; excavation and quarrying; animal hospital; veterinarian; museum; country club; hospital; convalescent hospital and skilled nursing facilities sanitarium; public parks; playground; community center; grange halls; public dumps; rest homes; public utility service yards; residential care homes for more than six persons; child nurseries for more than fourteen persons; bed and breakfast; second residential units; performing arts studio; mobile home to house agricultural workers
- Airports; industrial plants which process agricultural products; frog farms; commercial hog and turkey raising; fertilizer plants; kennels; cattle feed yards; animal sales yard; public utility transmission substation; fare equipment sales and service; labor supply camps; sales of agricultural products
- Commercial explosives storage and manufacture
- Churches

Farmland Classification

The California Department of Conservation (CDC) classifies the majority of the WRSP Area as Farmland of Local Importance. A small area encompassing a portion of the existing pistachio orchard is designated as Prime Farmland.

2.2.2 Remainder Area

Ownership

The 2,365 acres of the Remainder Area are owned by numerous landowners, which are described in Section 4.1 (Land Use and Agricultural Resources).

Existing Uses

The physical characteristics of the Remainder Area are similar to the WRSP Area, consisting of rural nonnative, annual grasslands. As shown on Figure 2-2, the 2,365-acre Remainder Area consists of an area to the north and south of the Westpark property and to the west of the Fiddyment Ranch property. The topography of the Remainder Area is relatively flat with areas of rolling terrain. Pleasant Grove Creek and its tributaries traverse the northern portion of the area. Native oaks are present along the riparian stream corridors. Wetland areas are dispersed throughout the Remainder Area with the greatest concentration located in the northern portion.

The predominant land use is seasonal livestock grazing. In addition, there are several residences in the Remainder Area, including the Harris, Chuang, and Blue Oaks Associates properties north of the PGWWTP site and the O'Brien property to the west of the PGWWTP site. The "Fiddyment Complex" is located to the east of the PGWWTP site and the Corin House is located farther to the east of the PGWWTP site, just west of Fiddyment Road.

Existing Zoning

The Remainder Area is designated Agriculture/Timberland, 80-acre minimum in the Placer County General Plan, and zoned FB-X-80. Allowable uses are described above under West Roseville Specific Plan Area, Existing Zoning.

Farmland Classification

The Remainder Area is classified as Farmland of Local Importance. There is no Prime Farmland designated in this area.

2.2.3 City-Owned Property

In 1997, the City of Roseville entered into a Memorandum of Understanding (MOU) with Placer County to foster cooperative land use planning. The MOU applies to a "Transition Area" west of Fiddyment Road and north of Baseline Road, as illustrated by Figure 1-2 (MOU Transition Area) in Chapter 1, Introduction, of this EIR. The City of Roseville owns approximately 180 acres within the MOU Transition Area that are not part of the proposed SOI Amendment because the City Property is already incorporated, as also shown on Figure 1-2. The City property contains the PGWWTP, located on approximately 110 acres, and a City-owned 70-acre buffer property to the north of the PGWWTP. The City certified an EIR for the PGWWTP in 1996 (Roseville Regional Wastewater Treatment Service Area Master Plan EIR, SCH No. 93092079). The City-owned property is not part of the project.

2.3 PROJECT OBJECTIVES

2.3.1 West Roseville Specific Plan Area

The WRSP project objectives provide for the orderly and systematic development of a mix of residential neighborhoods, schools, parks, community commercial, light industrial, industrial, commercial mixed-use, and business/professional uses in a manner consistent with General Plan policies, including the Guiding Principles for West Roseville (refer to Appendix L), and the characteristics and natural features of the land. These Guiding Principles, which were adopted in May 2001, supplement the General Plan by identifying the City's expectations for potential development west of Roseville, including the WRSP Area and the Remainder Area. The intent is to ensure that all new development conforms to City policies, standards, and expectation and does not unduly impact services to existing residents. The following objectives apply to the proposed WRSP:

1. Create a comprehensively planned residential based community balanced by providing a mix of employment, commercial, business professional, service, recreation, open space, and public uses
2. Provide a logical and orderly extension of the City of Roseville compatible with surrounding land uses that complements the pattern and intensity of existing development in the City and provides new benefits to the City
3. Satisfy the City policies, regulations and expectations as defined in the General Plan, West Roseville Guiding Principles, City-County MOU, Zoning Ordinance, Improvement Standards, and other applicable plans, documents, and programs adopted by the City
4. Aid the City in meeting its recognized obligation to accommodate a percentage of future population growth in the region by increasing the residential holding capacity by 8,430 residential units in an area identified in the City's feasibility analyses as appropriate for such a development
5. Ensure compatibility with the City of Roseville's PGWWTP, through inclusion of appropriate uses within a 1,000-foot nonresidential buffer area around the plant
6. Offer a low-density age-restricted community as a component to the WRSP to complement the age-restricted community in the Del Webb Specific Plan and to respond to the market preferences and needs of senior adults as they relate to type, size, cost of housing and recreational social amenities
7. Shape a physical form and character of development that is functional, and creates a sense of place that will
    a) Establish an identifiable western edge of the City through inclusion of contiguous permanent open space areas

b) Enhance Roseville's supply of, and reputation for, quality housing that provides a diversity of housing opportunities available to residents from a wide range of economic levels and all stages of life

c) Organize neighborhoods to be identifiable, walkable, and to incorporate gathering places, such as parks and schools, for neighborhood activities and interaction

d) Encourage the concentration of recreation, education, service, public, and community activities as focal points of the community including

- › Development of a mixed-use Village Center that incorporates smart growth principles and is modeled as a traditional hub of services, activity, and people gathering
- › Creation of a central Activity Core, that includes two regional parks (Regional Sports Park and Fiddyment Park) and a high school
- › Provision of adequate school facilities to serve students generated in the WRSP Area

e) Expand the City's employment base through the inclusion of commercial, industrial, light industrial, and business professional uses

f) Balance development with resource protection, including preservation of cultural resources, significant creek corridors, sensitive habitat, oak woodlands, and wetlands in interconnected permanent open space

8. Provide a safe and efficient circulation system that interconnects uses and promotes pedestrian circulation and alternate transportation options
9. Create an interconnected Class I bikeway system that links the Plan Area with the rest of the City as well as residential neighborhoods, open space, parks, schools, service, and activity areas
10. Ensure that the WRSP development pattern and circulation system do not preclude an alignment for the proposed Placer Parkway
11. Provide and maintain services and infrastructure that meet or exceed City standards, integrate with existing and planned facilities and connections, consider potential development in the remainder of the City-County MOU Area, and do not diminish services to existing residents of the City
12. Ensure that the WRSP includes a mix of uses and facilities that are fiscally feasible and implement funding mechanisms to avoid negative impacts to the City's General Fund
13. Phase development to link the provision of services with the timing of development to respond to the short-term buildout of residential land use inventory in the City and to accommodate projected long-term residential market demand

2.3.2 Remainder Area

The objectives for the Remainder Area are to provide a platform for orderly and systematic future development consistent with General Plan policies, the Guiding principles and the natural features of the

land. It is recognized that the Remainder Area is a logical location for future growth as identified in the City of Roseville and Placer County Memorandum of Understanding. The Remainder Area in the SOI amendment will enable the City to begin a long-term planning process to ensure the Remainder Area ultimately develops to City of Roseville standards and has minimal impacts on existing City levels of service. In addition, an objective of the Sphere amendment would be to adequately plan for and size future infrastructure. No additional or more refined project objectives have been identified for the Remainder Area because there are no specific development plans or proposals for the area at this time.

2.4 PROPOSED PROJECT

As stated earlier in this chapter, the "project" evaluated in this EIR is composed of various components. The principal components are (1) an SOI amendment for the WRSP and Remainder Areas, (2) annexation of the WRSP Area, (3) adoption of the WRSP, (4) General Plan Land Use and text amendments, and (5) zoning code changes. The components of the WRSP are described in detail below, followed by a discussion of assumptions used for analysis of the Remainder Area. Together, the WRSP and Remainder Area assumptions provide the basis for environmental analysis of the full SOI Amendment Area. Table 2-1 provides a breakdown of project acreage for the SOI Amendment Area as a whole, the individual WRSP Area, and the Remainder Area.

Table 2-1 Project Acreage

	Acreage Distribution		
	WRSP	Remainder Area	Total SOI Amendment Area
Within MOU Transition Area[1]	2,994	2,365	5,359
Outside MOU Transition Area	168	0	168
Total Project	3,162	2,365	5,527

NOTE:

1. Does not include 180 acres within the MOU "Transition Area" owned by City of Roseville (110-acre PGWWTP and 70-acre buffer area to the north).

2.4.1 West Roseville Specific Plan

The WRSP provides comprehensive planning for the 3,162-acre WRSP Area. The City has processed eight different specific plans for various areas of the City since the mid 1980s and has developed specific development standards in order to maintain a certain quality of life for Roseville residents. The WRSP will describe and provide the regulatory framework for the proposed WRSP Area, including land use, circulation, affordable housing, resource management, infrastructure, public services, phasing, implementation, and design characteristics.

As shown on Table 2-2, the WRSP Area totals 3,162 acres. It will be developed with a total of 8,430 dwelling units (DU) on 1,754 acres; 685 acres set aside in open space; 270 acres for dedication to parks; 148 acres of public/quasi-public uses; 49 acres of community commercial; 20 acres of business professional uses; 109 acres of light industrial and general industrial uses; and 128 acres of roadway right-of-way (ROW). An illustration of the proposed land use plan is shown on Figure 2-3 (West Roseville Specific Plan Land Use Plan). Each of these land uses is described briefly below.

Residential Uses

Within the WRSP, 8,430 residential units providing housing for a residential population of approximately 20,810 residents. The average proposed density of all land designated for residential use is 4.8 dwelling units per acre (units/acre). The proposed average residential density over the entire WRSP Area is 2.67 units/acre. Residential development is proposed in three density ranges consistent with the residential density ranges in the Roseville General Plan. Approximately 21 percent (1,774 dwelling units) of all units are proposed for High-Density Residential (13.0 units/acre and greater), approximately 13 percent (1,064 dwelling units) are planned for Medium-Density Residential (7.0 to 12.9 units/acre), and approximately 66 percent (5,552 dwelling units) are planned within the Low-Density Residential (0.5 to 6.9 units/acre) range.

Table 2-2 Proposed West Roseville Specific Plan Land Uses

Zoning	Land Use	Total	
		Acres	DUs
LDR	Low-Density Residential	1,355	4,842
LDR (Age Restricted)	Low-Density Residential	147	710
MDR	Medium-Density Residential	142.9	1,064
HDR	High-Density Residential	109.7	1,774
OS	Open Space	670	
OS/Paseo	Paseo	15	
PR	Park	251	
PR	Pocket Parks	19	
P/QP	Public/Quasi-Public	148	
CC	Community Commercial	49	40
BP	Business Professional	20	
LI	Light Industrial	74	
IND	Industrial	34	
R/W	Road ROW	128	
	Total	***3,162***	***8,430***

NOTES:
DU= dwelling units
Minor adjustments to total due to rounding.
SOURCE: Morton Pitalo Land Use Plan, August 29, 2003

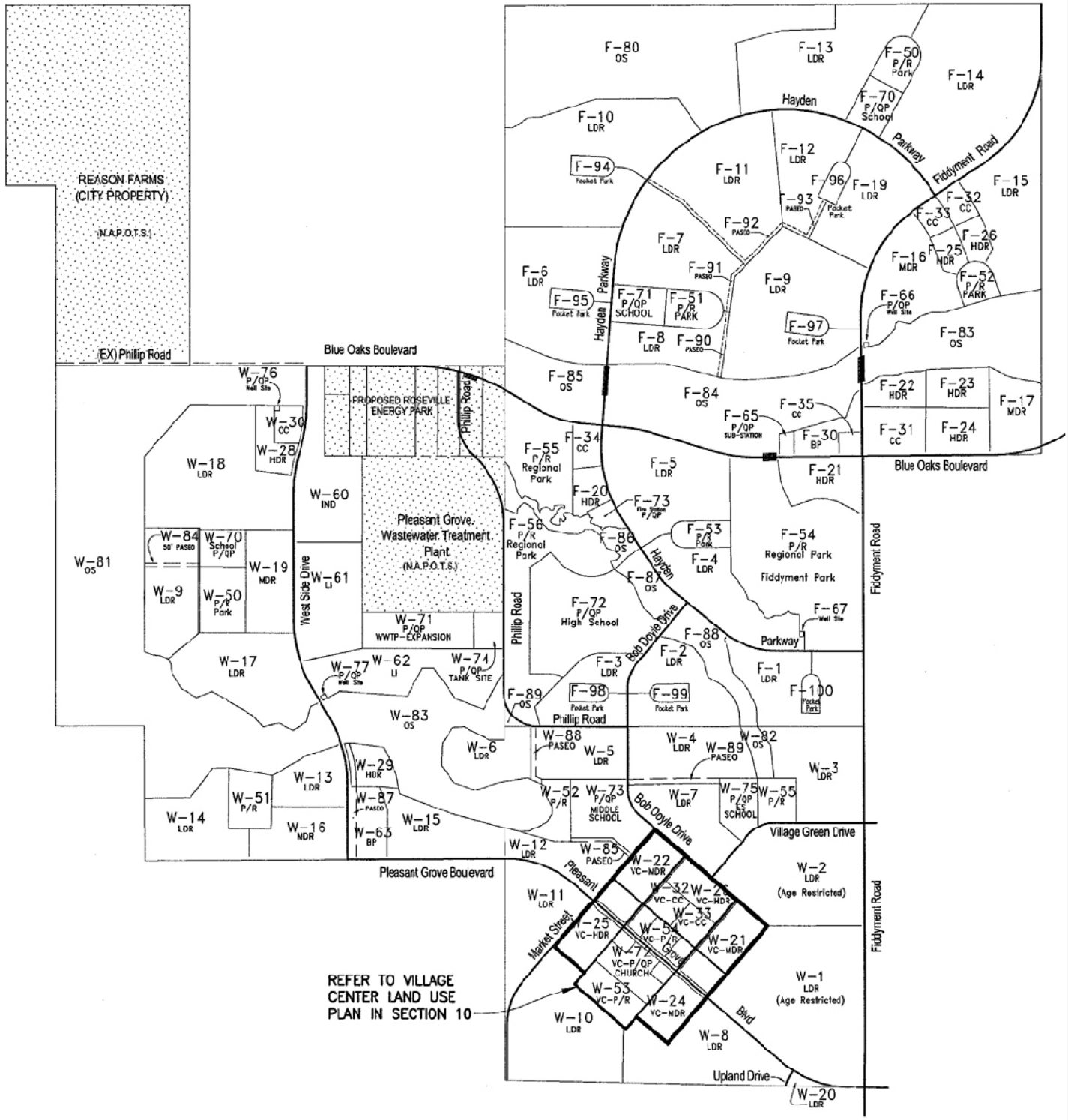


FIGURE **2-3**

West Roseville Specific Plan Land Use Plan

Not to Scale

10659-00

Source: West Roseville Specific Plan 2003 City of Roseville

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Among the units planned for Low-Density Residential, 710 DU are planned to be within an age-restricted neighborhood in the southeast portion of the WRSP Area.

High-density and medium-density residential sites are proposed in areas of greater intensity within the WRSP Area (i.e., near commercial sites, employment-generating land uses, and proposed public transportation routes).

Of the total 8,430 of dwelling units, 10 percent are planned to meet affordability criteria for very low-, low-, and middle-income households, as set forth in the General Plan. The WRSP proposes 337 dwelling units affordable to very-low income households, 338 dwelling units affordable to low-income households, and 168 ownership dwelling units available to middle-income households. Affordable units would be designated as rental units within multi-family sites (for low and very-low income). Middle-income purchase units would be designated in single-family neighborhoods. All or a portion of thirteen parcels in the WRSP are designated for affordable units.

Community Commercial

Seven sites in the WRSP are designated Community Commercial. Community Commercial sites, totaling 48.5 acres, would provide a mix of retail and services. Uses permitted within the Community Commercial land use include, but are not limited to, grocery stores, retail stores, banks, restaurants, personal services, professional offices, and gas stations. For a comprehensive list of permitted uses, refer to Section 4.1 (Land Use and Agricultural Resources).

Business Professional

Two sites are designated for Business Professional land uses at the intersections of West Side Drive and Pleasant Grove Boulevard and Blue Oaks Boulevard and Fiddyment Road, for a total of approximately 20 acres. The Business Professional land use designation is intended to provide a flexible mix of uses that may include professional offices, medical and dental offices, financial institutions, and supporting retail uses. Uses permitted and conditionally permitted on the Business Professional site are set forth in Section 4.1 (Land Use and Agricultural Resources).

Village Center

As part of the WRSP, the City would create a new "Village Center" General Plan Land Use Combining designation. In addition, a new overlay district would be created to promote pedestrian travel. The proposed Pedestrian District Overlay would be applied to the Village Center.

The 121-acre Village Center site is proposed to be located on either side of Pleasant Grove Boulevard, in the southeast portion of the WRSP Area (refer to Figure 2-3). The Village Center includes a concentration of higher-intensity land uses designed to create an employment, social, and service center for the WRSP. Within the Village Center, a mix of Community Commercial, Medium-Density Residential, and High-Density Residential land uses are combined to provide a mix of office, services, and retail uses with a design and scale that encourage pedestrian activity and mixing of uses. The Village Center includes a church and park uses and would be served by an extension of Pleasant Grove Boulevard as well as collector streets.

Light Industrial and General Industrial Uses

Approximately 108.5 acres are designated for Light Industrial and General Industrial land uses in the western portion of the WRSP Area, south and west of the PGWWTP. Within the land use plan, Light Industrial and General Industrial uses provide a 1,000-foot buffer between the PGWWTP and residential uses west of West Side Drive. Properties within the 1,000-foot buffer south and west of the PGWWTP would be encumbered with a "restrictive use easement" that restricts all development in this area to non-residential uses. This buffer was established in an EIR specifically addressing the PGWWTP and applies only to the PGWWTP. A portion of the proposed high school site would lie within the buffer; however, all school buildings would lie outside of the buffer. While the Light Industrial and General Industrial uses would be generally consistent with the Light Industrial (M1) and General Industrial (M2) Zoning Districts, the range of uses allowed in the WRSP would be more limited due to the proximity of the PGWWTP and the need to ensure compatible land uses adjacent to the plant. A complete list of all permitted uses allowed within the Light Industrial and General Industrial Zoning classifications is included in Section 4.1 (Land Use and Agricultural Resources).

Schools

The WRSP Area is served by three school districts: Roseville Joint Union High School District (grades 9–12), the Center Joint Unified School District (grades K–12), and the Roseville City School District (grades K–8). Residential development within the WRSP Area would generate students and demand for new schools within the Roseville Joint Union High School District and the Roseville City School District. The boundaries of the school districts are illustrated by Figure 4.10-2 (School District Boundaries), which is provided in Section 4.10 (Public Services) of this EIR. No residential uses are proposed within the Center School District boundaries, as illustrated by comparing Figure 4.10-2 and Figure 2-3. Land uses within the Center School District portion of the WRSP are proposed to be open space and therefore would not generate student demand. As shown in Figure 2-3, the WRSP proposes one 53-acre high school site west

of Fiddyment Road and southeast of the proposed regional sports complex near Hayden Parkway. One 19.6-acre middle school site is proposed northeast of the Village Center, south of Pheasant Run. Four elementary school sites are proposed in the WRSP project area in residential areas: two sites are proposed north of Blue Oaks Boulevard, one is proposed south of Blue Oaks Boulevard, and one is proposed west of West Side Drive, south of Blue Oaks Boulevard.

If the Roseville Joint Union School District determines that a high school is not needed within the WRSP Area, the portion of the proposed high school located within the 1,000-foot PGWWTP buffer would be designated for a park and the remainder of the school site would be designated for low-density residential uses, provided that the total number of residential units in the WRSP would not exceed the 8,430 units analyzed in this EIR. Because the number of units and acres of disturbed land would not increase if the high school were not constructed, the physical impacts of disturbing the land would be the same as, or less than, those of the WRSP as proposed. However, high school students not accommodated in the WRSP Area would attend other schools in Roseville, which could exacerbate any over-capacity problems in Roseville schools. In addition, physical impacts to air quality, noise, and traffic from additional trips to and from Roseville schools could occur and could be potentially significant. (Alternatives 2 and 3 would not contain a high school, and impacts are described in Chapter 6, Alternatives.)

Parks

Approximately 270.4 acres are proposed to be dedicated to parks, as shown in Figure 2-4 (West Roseville Specific Plan Schools, Parks, and Open Space). A variety of active parks are proposed, including two Citywide parks and ten neighborhood parks, ranging in size from 3.5 to 14.1 acres. In addition, seven pocket parks, ranging in size from 2.4 acres to 3.2 acres, are proposed. The following provides a description of the proposed parks.

Citywide Parks

Regional Sports Park

As shown on Figure 2-4, two Citywide parks are proposed south of Pleasant Grove Creek and Blue Oaks Boulevard. A 76-acre regional sports park is proposed to be located south of Blue Oaks Boulevard, between Phillip Road and Hayden Parkway, adjacent to the proposed high school. It would be an active use park designed as a shared-use facility between the City and the adjacent high school. The park is planned to include soccer fields, baseball fields, a lighted soccer/football stadium, tennis courts, softball fields, an outdoor swimming pool, basketball courts, and a 400 meter track. The combined Regional

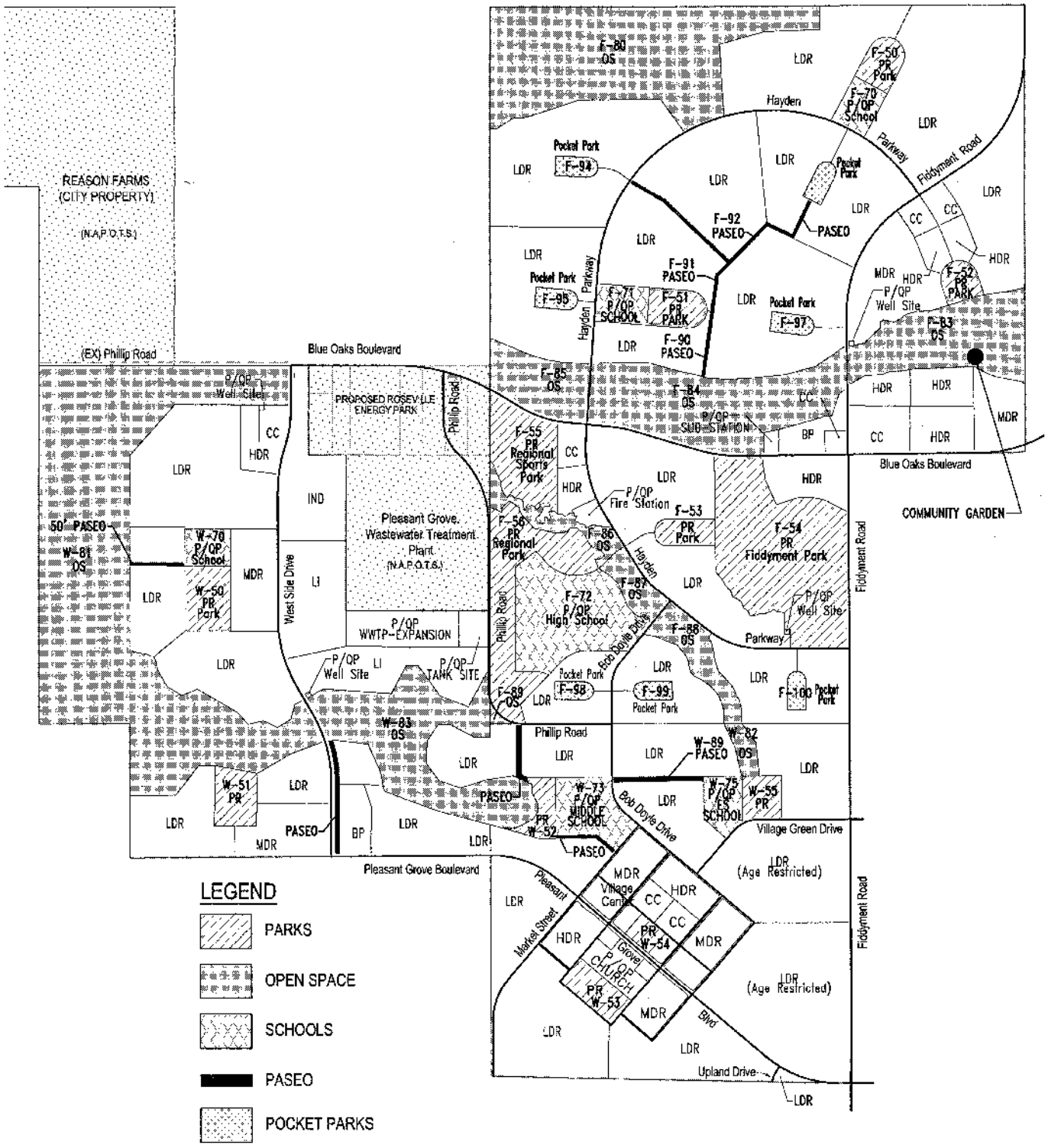


FIGURE **2-4**

West Roseville Specific Plan Schools, Parks, and Open Space

Scale: 1" = 2000'

10659-00

Source: Morton & Pitalo, Inc., 2003

City of Roseville

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Sports Park/high school site includes a concession area with restrooms, outdoor seating, and parking lots. Figure 2-5 (Regional Sports Park) illustrates the proposed park plan.

The existing historic Fiddyment Ranch house and a majority of the associated outbuildings would be retained on the regional park site and may be refurbished to provide a facility for special events (Refer to Cultural Resources for a description).

Fiddyment Park

A second 91-acre Citywide park, Fiddyment Park, is proposed adjacent to Fiddyment Road. This park is proposed to preserve a majority of the oak woodland currently present on the site and to provide a multi-use trail that would connect to the proposed Class I bike trail system. Amenities in the park could include bike and pedestrian paths, an outdoor festival area, activity greens, a disc golf course, and a small multi-purpose center.[4] Figure 2-6 (Fiddyment Park) depicts Fiddyment Park.

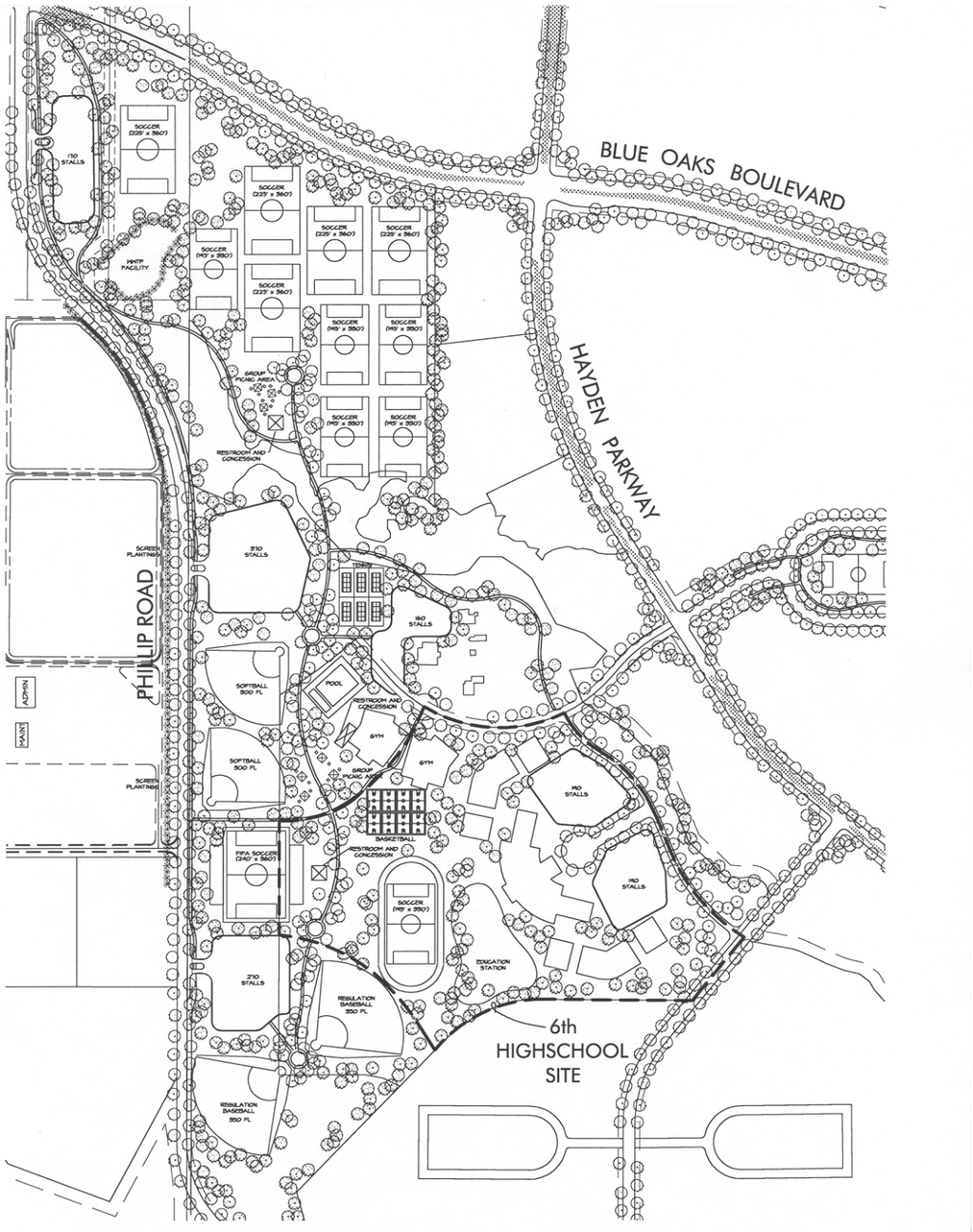
Neighborhood Parks

Ten neighborhood parks would range in size from 3.5 to 14.1 acres and would be located throughout the Plan Area. A total of five parks would be located adjacent to schools as shared-use facilities. Five parks would be adjacent to schools to support joint use activities. The neighborhood parks would include a mix of soccer and baseball fields, tot lots, playgrounds, picnic areas, and hard courts. An illustration of a Conceptual Neighborhood Park is shown in Appendix N.

Pocket Parks

Seven small pocket parks ranging in size from 2.4 acres to 3.2 acres are proposed within the Signature Properties Inc. portion of WRSP. These pocket parks would be landscaped and include opportunities for passive recreation, including, in some cases, tot lots, picnic tables, benches, informal turf areas, and shade structures. Pocket parks would be constructed by the applicant(s) in addition to neighborhood and Citywide park and recreation requirements. Ongoing maintenance would be funded by a services district, separate from and in addition to the funding mechanism for neighborhood and Citywide park maintenance. Pocket parks would be situated along the primary entry axis of the subdivision and will be ringed by local streets with residential units fronting the adjacent road and park. A typical pocket park is illustrated in Appendix N.

[4] Construction of the multi-purpose center would occur only if funding is available for ongoing operation and maintenance of the center.

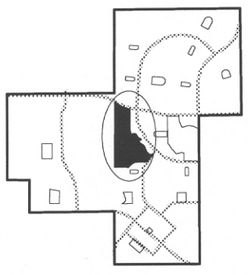


REGIONAL SPORTS PARK
AMENITIES

REGIONAL SPORTS PARK PROPERTY

- LIGHTED SOCCER FIELDS (10)
- LIGHTED SWIMMING POOL
- LIGHTED PARKING - 970 CARS
- SPECIAL EVENTS FACILITY/FIDDYMENT HOUSE
- TENNIS COURTS (6)
- JOINT-USE GYMNASIUM
- LIGHTED SOFTBALL DIAMONDS (2)
- LIGHTED FOOTBALL/SOCCER STADIUM
- BASEBALL DIAMONDS (2)
- SITE AMENITIES
  - -CONCESSION/RESTROOM (2)
  - -GROUP PICNIC AREA (3)
  - -DRINKING FOUNTAINS
  - -PATHWAYS
  - -INFORMAL TURF AREAS
  - -BENCHES
  - -BICYCLE PARKING
  - -TRASH/RECYCLE CANS
  - -SHADE TREES
  - -TELEPHONES
  - -PICNIC/BARBEQUE FACILITIES

KEY MAP



6th HIGH SCHOOL
AMENITIES

HIGH SCHOOL PROPERTY

- BASKETBALL COURT (8)
- LIGHTED 400M TRACK/ SOCCER FIELD
- LIGHTED PARKING -380 CARS
- CONCESSION/RESTROOM (1)
- SCHOOL GYMNASIUM

REGIONAL SPORTS PARK
AMENITIES

CONSTRUCTION AMENITIES FUNDED BY DISTRICT

- BASEBALL DIAMONDS (2)
- LIGHTED FOOTBALL/SOCCER STADIUM
- TENNIS COURTS (6)
- SWIMMING POOL

REGIONAL SPORTS PARK
AMENITIES

CONSTRUCTION AMENITIES FUNDED JOINTLY BY DISTRICT AND CITY

- LIGHTED SOFTBALL DIAMONDS (2)
- SWIMMING POOL SHOWER FACILITIES
- SWIMMING POOL PARKING
- JOINT USE GYMNASIUM

0' 600' 1200'

SCALE 1"=600'-0"

FIGURE **2-5**
Regional Sports Park

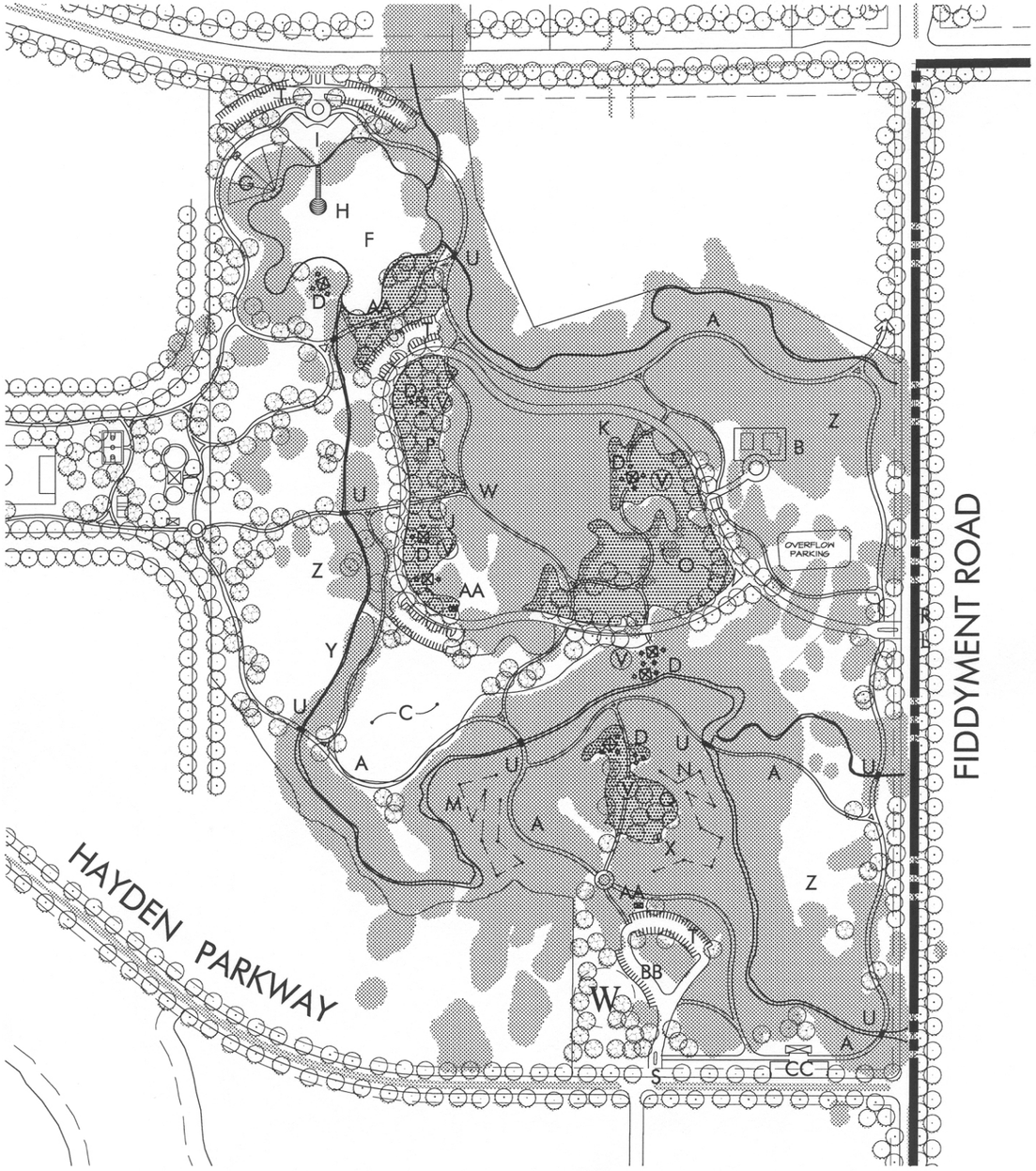
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Source: HLA

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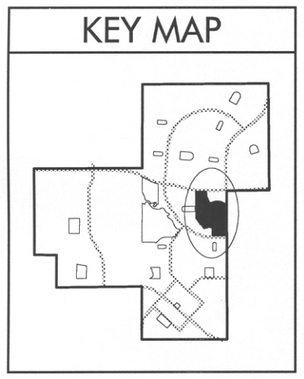
REGIONAL PARK F-54
AMENITIES

REGIONAL PARK (90.9 ACRES)

A. MULTI-USE TRAIL
B. CARETAKER HOME
C. CENTRAL FESTIVAL GROUNDS
D. GROUP PICNIC AREAS (LARGE)
E. GROUP PICNIC AREAS (MEDIUM)
F. LAGOON
G. VILLAGE GREEN
H. FISHING PIER
I. 10,000 SQUARE FT. MULTIPURPOSE CENTER
J. MONUMENT HILL
K. 24' ACCESS ROAD
L. PARK SIGNAGE
M. DISC GOLF FRONT NINE
N. DISC GOLF BACK NINE
O. EAST ACTIVITY GREEN
P. WEST ACTIVITY GREEN
Q. SOUTH ACTIVITY GREEN
R. GATED FIDDYMENT ROAD ENTRY
S. GATED HAYDEN PARKWAY ENTRY
T. PARKING
U. FOOT BRIDGE
V. ADVENTURE PLAYGROUND
W. PEDESTRIAN TRAIL
X. HORSESHOE PITS
Y. EXISTING CREEKWAY
Z. EXISTING OAK GROVES/ GRASSLANDS

AA. RESTROOM/CONSSION BUILDING
BB. PARK AND RIDE PARKING
CC. BUS STOP

KEY MAP



0' 400' 800'

SCALE 1"=400'-0"

10659-00

FIGURE **2-6**
Fiddyment Park

***Source*:** HLA

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11x17 fig p2

2.4.2 Open Space

A total of approximately 685 acres would be set aside in permanent open space (shown on Figure 2-4). The open space areas play a significant role in defining the visual character of the WRSP Area. They provide for passive recreation opportunities, view corridors, resource preservation, and stormwater drainage and flood water conveyance. In addition, open space areas provide components of a Class I trail system, allowing residents to jog, bike, or walk throughout the WRSP Area using connections between the various neighborhoods and commercial centers.

The open space preserves in the WRSP Area include all open land along Pleasant Grove Creek, upland and seasonal wetland areas, and oak woodlands. In many locations, a 50-foot easement would be provided immediately adjacent to the preserve area to accommodate a dedicated Class I pedestrian pathway to be shared with a vehicle maintenance road for underground utilities and/or maintenance activities. In addition, open space areas could accommodate utility lines and provide the conduit for drainage and detention facilities within the WRSP Area. Utility and engineering requirements and/or topographic or resource constraints may necessitate full management or infrastructure construction within the open space preserves. Any disturbance or construction within open space preserve areas would comply with the provisions of the Army Corps of Engineers approved Open Space Management Plan and Section 404 permit requirements. In addition, any sensitive habitat proposed for preservation (such as vernal pools) would be located within the open space preserves. These areas would be fenced with post and cable and identified with signs indicating that they are sensitive preserve areas. Some areas may be fenced with six-foot chain-link or wrought-iron fencing. A two-acre community garden is planned within the open space. A small parking area will be provided for the garden and trail users.

The City would conduct the following activities within the open space areas consistent with the 404 permit:

- Weed abatement
- Planting and maintenance of vegetation
- Application of agrichemicals including, but not limited to, the application of fertilizers, pesticides, herbicides to control weeds and other vegetation
- Mowing to control weeds, reduce thatch, and reduce fire hazards
- Construction of bike trail(s), pedestrian trail(s), and related improvements
- Public access to City-designated trails, bikeways, and open space areas
- Drainage improvements and outfalls, including BMPs for stormwater quality

- Construction/repair/replacement of fencing and signage
- Inspections for vandalism (i.e., four-wheel drive damage)
- Access for fire prevention and control (City of Roseville Fire Department and other fire fighting agencies)
- City of Roseville and other utility provider access for utility and infrastructure improvements, monitoring, and maintenance, and to maintain hydrologic conditions that may require removal of vegetation
- Access to backyards for construction (e.g., pools) through open space areas with permission and verification that routes would not impact natural resources (e.g., oak tree drip zones, vernal pools, drainage swales, etc.)

The following activities and uses are inconsistent with the purpose of the open space preserves and would be prohibited therein:

- Filling, dumping, excavation, draining, dredging, mining, drilling or extraction of minerals, hydrocarbons, soils, sands, gravel, rock, or any other material on or below the surface of the property that is not directly related to accepted implementation of the WRSP, agricultural practices or open space management practices, except the extracting of water on or below the surface of the property
- Dumping or other disposal of wastes, refuse, or debris on the property except for organic material generated or used for other uses on the property
- Any uses or activities that would pollute or degrade the surface or subsurface of waters on or underlying the property except such uses or activities consistent with generally accepted practices or otherwise permitted pursuant to the Open Space Management Plan or existing local, State, and federal laws
- Any use or activity that causes substantial degradation of topsoil quality

Paseos

"Paseos" are 25-to-75-foot-wide landscaped corridors in residential neighborhoods that are planned to provide bike and pedestrian pathways connecting to neighborhood parks, schools, and commercial areas. In most cases the paseos would be located adjacent to residential streets, where street lighting would be provided. In those areas where the paseos are located more than approximately 50 feet from roadways, adjacent to park sites, lighting would be provided through a combination of overhead pole lights and low bollards. Paseo locations are shown on Figure 2-4.

Circulation

The circulation system in the WRSP Area would be composed of a pedestrian/bikeway network, a hierarchy of roadways, and a public transportation system. Appendix O includes cross sections of various roadways.

Arterial Roadways

The roadway system within the WRSP Area would consist of the extension of arterial roadways, including Pleasant Grove Boulevard and Blue Oaks Boulevard, west of their current terminus at Fiddyment Road. These roadways would traverse the site from east to west, as illustrated by Figure 2-7 (West Roseville Specific Plan Major Roadway/Circulation Plan).

Pleasant Grove Boulevard

Pleasant Grove Boulevard would be for a four-lane arterial with a 76-foot right-of-way, a 35-foot landscaped corridor, sidewalks, Class 1A bike lanes, and a 14-foot median. Through the Village Center, Pleasant Grove Boulevard narrows and the landscape median doubles in width. Landscape corridors and soundwalls are replaced by planter strips. Outside of the Village Center, Pleasant Grove returns to a 76-foot arterial roadway. West of West Side Drive, Pleasant Grove Boulevard is a residential collector serving adjacent residential parcels to the north.

Blue Oaks Boulevard

Blue Oaks Boulevard is planned for six lanes (100-foot right-of-way) extending west through the WRSP and terminating at West Side Drive. A 60 kV overhead power line is planned within a 35 to 50-foot wide easement coterminous with the landscape corridor on the north side of Blue Oaks Boulevard. Early phases of the WRSP will construct four lanes of Blue Oaks Boulevard with a 38-foot wide median that may accommodate expansion to six lanes in the future. Two alternative alignments of Blue Oaks Boulevard are considered. The preferred alignment of Blue Oaks Boulevard, conceptually illustrated by Figure 2-7, extends west to the west side of WRSP and consists of three travel lanes, bike lane, curb, gutter, sidewalks, street lights, joint trench, and in-street utilities. The preferred alignment would require acquisition of the O'Brien property. An alternative would consist of the same improvements in an alignment located slightly north and off site that would avoid impacts to wetlands and the O'Brien residence and kennel.

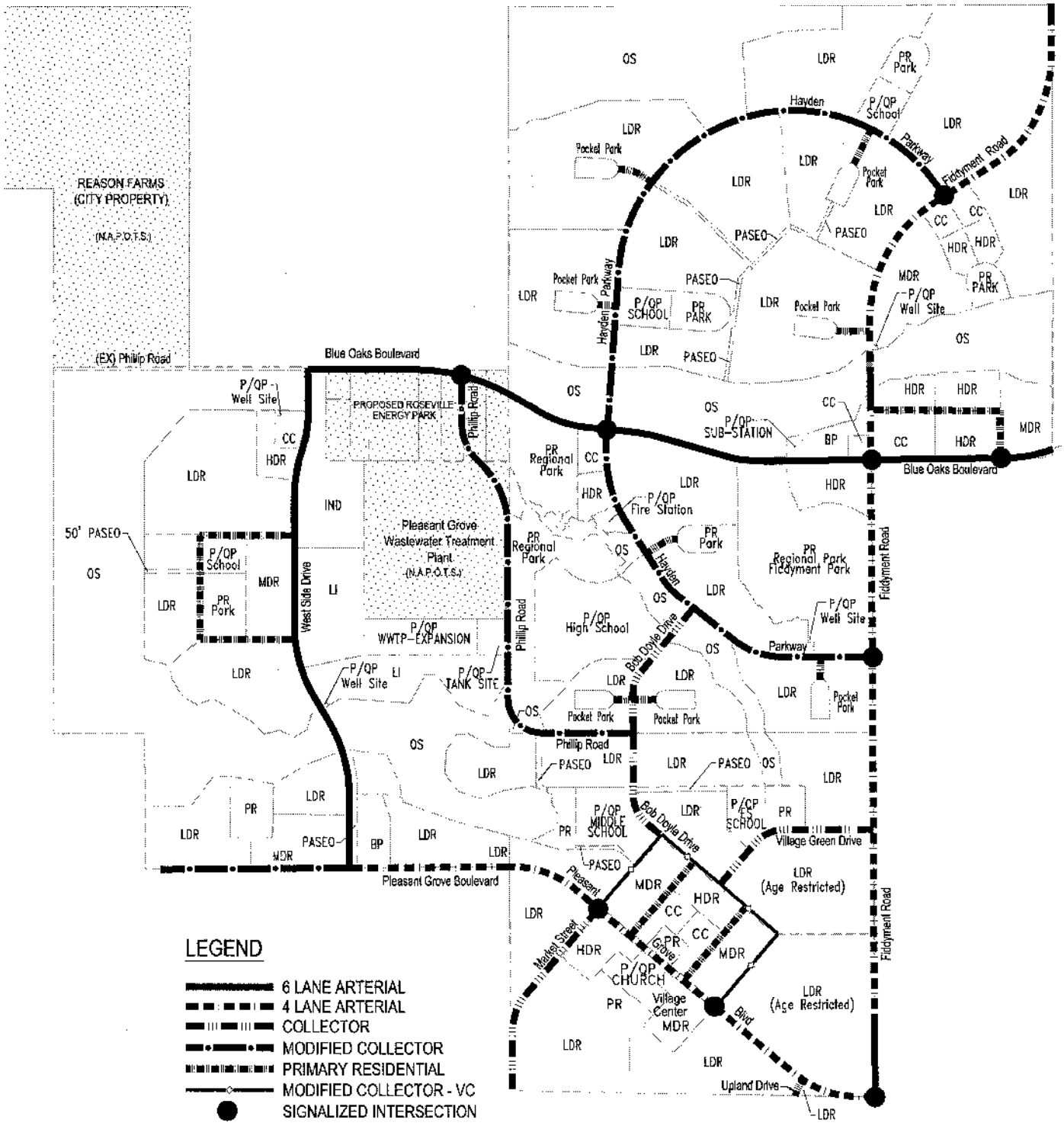


FIGURE **2-7**

West Roseville Specific Plan Major Roadway/Circulation Plan

Scale: 1" = 2000'

10659-00

Source: Morton & Pitalo, Inc.

City of Roseville

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Fiddyment Road Improvements/Realignment

The existing alignment of Fiddyment Road forms the eastern boundary of the WRSP and would be widened to four lanes, with a median, bike lanes, sidewalk, landscaping, as well as extended and realigned north past Blue Oaks Boulevard. A portion of existing Fiddyment Road north of Pleasant Grove Creek will be abandoned as a roadway and realigned to an alignment to the west. The realignment (a 76-foot right-of-way with a 35-foot landscape corridor) would eliminate the existing jog in the roadway at Blue Oaks Boulevard. A section of Fiddyment Road immediately north of the Pleasant Grove Boulevard intersection would be six-lanes, with a 120-foot right-of-way, as it tapers south of Pleasant Grove Boulevard. The old Fiddyment Road alignment north of Pleasant Grove Creek would be used as bike and pedestrian trails and local roadways.

West Side Drive

West Side Drive is planned as six-lanes with a 100-foot right-of-way extending between Blue Oaks and Pleasant Grove Boulevards. Early phases of the WRSP will construct four lanes of West Side Drive with a wide median that may accommodate expansion to six lanes in the future. West Side Drive provides north/south circulation through the project that could be extended further to the south or north in the future. Within the SOI, West Side Drive could be extended south to Baseline Drive and/or north to the future extension of Placer Parkway. Extension of West Side Drive outside the WRSP would be subject to additional analysis.

Collector Roadways

Hayden Parkway

Hayden Parkway is planned as a two-lane collector street with a 50-foot right-of-way to accommodate a 12-foot-wide landscape median with restricted median breaks. By completing the network of existing and planned arterial roads, the WRSP anticipates a grid system that would channel traffic in a northeast direction toward Highway 65 and, ultimately, Interstate 80.

Phillip Road

Phillip Road would be extended and realigned as a two-lane collector from the PGWWTP (near the northwest corner of the proposed regional sports park) north to a future intersection with Blue Oaks Boulevard for a distance of approximately 2,238 feet. The Phillip Road alignment would be located east of the PGWWTP and west of the regional sports park. The alignment would include an "S" curve that curves easterly approximately midway in its alignment. The new roadway would include a 40 to 48-foot

right-of-way, two travel lanes, curbs, gutters, joint trench, streetlights, all in-street utilities, landscape corridor and retaining wall (on the west side for a portion of the alignment), and a Class II bike lane. The right-of-way is approximately 80 feet wide (including landscape treatments on the west side, retaining wall, and paved section) at its widest point.

Phillip Road currently exists on the project site as a rural roadway that intersects Del Webb Boulevard and extends west toward the PGWWTP. Phillip Road extends north and west around the north side of PGWWTP. Existing Phillip Road would be abandoned in sections to construct the proposed alignment of Phillip Road in the project. In Phase I of the project, Phillip Road would be constructed from Bob Doyle Drive west and north between the PGWWTP and regional park (Parcel F-56). In Phase 3, the off site portion of Phillip Road would be constructed to Blue Oaks Boulevard adjacent to the City-owned property. The existing alignment of Phillip Road north of the Westpark property would remain in its current alignment in unincorporated Placer County. During project construction, access to the PGWWTP would be maintained from the existing alignment of Phillip Road.

North/South Connector

A north/south arterial roadway would likely be extended to connect West Side Drive to Baseline Road. Watt Avenue terminates at Baseline Road south of the SOI Amendment area (refer to Figure 2-2). Watt Avenue could be extended north sometime in the future, although the timing and alignment of such an extension is not known and is not proposed as part of the WRSP at this time. It could connect to West Side Drive or provide a north/south extension westerly of the WRSP. Development of the WRSP would not preclude extension of Watt Avenue at some point in the future.

Roadway Bridges

Roadway bridges are planned as some creek crossing. Bridges are planned on Hayden Parkway over Pleasant Grove Creek, on Fiddyment Road over Pleasant Grove Creek, on Blue Oaks Boulevard at Kaseberg Creek; and off site on Blue Oaks Boulevard over Coyote Creek. Improvements to existing off-site bridges are explained in the description of Off-site Improvements in this section.

Bikeways

The WRSP provides a bikeway network of Class I, IA, II and III bike lanes within open space, parks, and along streets and "informal" paved bike routes. The City's existing bike trail along Pleasant Grove Creek would be extended through the WRSP Area from the existing Veterans Park east of the WRSP Area. Connections would also be made to existing bike lanes outside of the WRSP Area located along Pleasant Grove Boulevard Blue Oaks Boulevard, Village Green Drive, Fiddyment Road, and Hayden Parkway.

Transit

It is proposed that Roseville Transit, operated by the City of Roseville, provide fixed route, dial-a-ride, and commuter bus service to the WRSP Area as demand for these services occurs and funds become available.

A total of five park-and-ride lots are dispersed throughout the WRSP Area in commercial, park, office, and industrial locations. Each designated location includes 20 park-and-ride spaces. Bus turnouts and stop shelters will be located within the WRSP Area and constructed in accordance with City Improvement Standards, design guidelines, and as otherwise required by the Public Works Director for specific projects.

Employers within the WRSP Area would be required to comply with the City of Roseville's Transportation Systems Management (TSM) measures, originally adopted in 1983 and revised in 1999, which requires companies with more than 50 employees to prepare a TSM plan that promotes use of alternative modes of transportation, including public transit and carpool/vanpools. The WRSP would also provide opportunities for residents to reduce automobile use by the organization of land uses and the strategic placement of facilities so that residents can walk or bicycle for some trips (e.g., parks, schools, stores) that might otherwise be taken by automobile. The WRSP will also provide opportunities for ridesharing, flexible work hours, and public transportation.

Public Facilities and Services

The WRSP provides for a variety of public facilities and services, including water, wastewater, recycled water, storm drainage and flood control, police and fire, solid waste, electrical service, schools, and parks. Each of these is described briefly, below.

Water Service and Potable Water

Potable water supply and service would be provided to the WRSP Area by the City of Roseville. Water would be delivered via a looped system following the major arterial and collector street alignments, as illustrated by Figure 2-8 (West Roseville Specific Plan Water Distribution System, Storage Tanks, and Well Locations). Pipe diameter sizes would range from 12 inches to 24 inches. The location of on-site water transmission and storage infrastructure is described in more detail in Section 4.11 (Public Utilities). Off-site water infrastructure improvements are described later in this section.

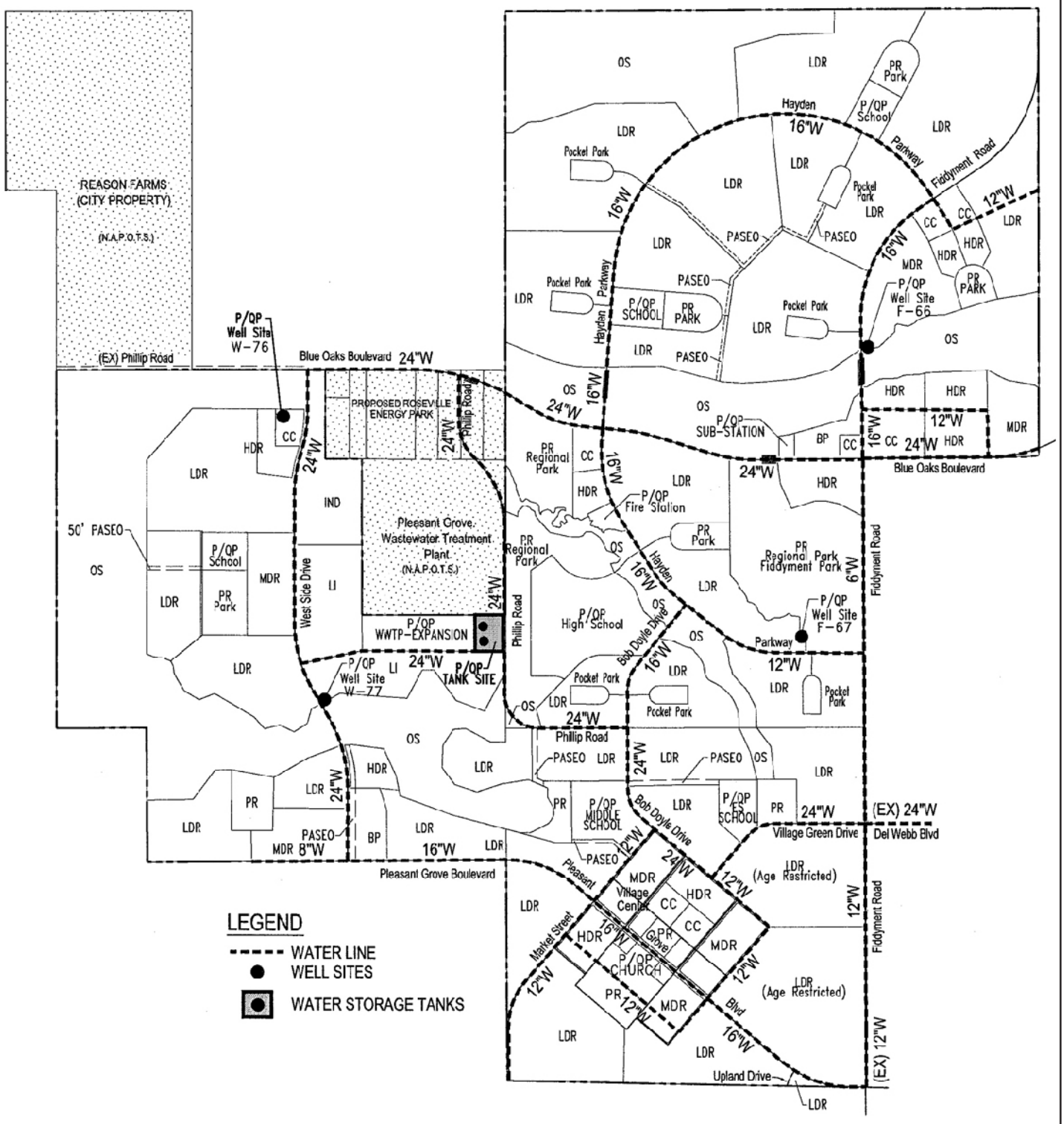


FIGURE **2-8**

West Roseville Specific Plan Water Distribution System, Storage Tanks, and Well Locations

Not to Scale

10659-00

Source: West Roseville Specific Plan 2003 City of Roseville

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The City has evaluated a range of water supply sources that could serve the proposed WRSP Area (described in detail in Section 4.11, Public Utilities). Three potential water supply sources have been identified serve the proposed WRSP Area:

- Additional surface water contract entitlement from the San Juan Water District
- Recycled water supplies made available for non-potable use (e.g., use of recycled water for landscaping, park irrigation, etc.)
- Existing City of Roseville water supplies

A fourth potential water source is groundwater, which may only be utilized in dry years or for short-term emergencies when other water supplies are not available.

Refer to Section 4.11 (Public Utilities—Water Supply), for a detailed discussion of the availability of these supplies to serve the proposed WRSP Area (in combination with existing and future City demand) and an analysis of potential environmental effects of water deliveries.

To connect the WRSP Area to the City's potable water system, two major water mains in the Del Webb development to the east would be extended west to Fiddyment Road. As depicted in the May 2003 Water Master Plan for the WRSP, an existing 24-inch stub at the intersection of Blue Oaks Boulevard and Del Webb Boulevard would be extended west approximately 2,600 feet, where a new 24-inch main to serve the WRSP Area would connect. An existing 24-inch main in Del Webb Boulevard would be extended approximately 1,100 feet west to Fiddyment Road, where a new 24-inch line in the WRSP Area would be installed. A new 16-inch line in the WRSP Area would connect to an existing 16-inch line on Pleasant Grove Boulevard that ends at Fiddyment Road. Connection of the southern Remainder Area would require connection to an existing 24-inch line in Baseline Road beginning at Fiddyment Road. The northern Remainder Area would connect to the new water line on Blue Oaks Boulevard. All water pipeline extensions would be installed in existing or planned roadways.

Two potable water tanks approximately 25 to 30 feet tall and approximately 170 feet in diameter that would hold approximately three million gallons each and an associated pump station would be located south of the PGWWTP adjacent to Phillip Road. Four groundwater wells would be located throughout the WRSP Area to provide backup water supply in drought or emergency conditions and/or for groundwater recharge capabilities. The four groundwater well locations and the water storage tanks are shown in Figure 2-8.

Wastewater

Wastewater infrastructure would be constructed in the WRSP Area consistent with the Regional Wastewater Master Plan. The PGWWTP would serve the project with modification of Roseville's Wastewater Service Area as part of this project. Revised NPDES permits from the Regional Water Quality Control Board would be required to include the ability of the PGWWTP and the expansion to meet treatment requirements prior to buildout of the WRSP. The wastewater collection system would be designed to direct the wastewater flows by gravity. The PGWWTP is located north of and near the center of the WRSP, and is not included as part of the WRSP. The WRSP Area abuts the plant site on the east, south, and west sides of the plant. In compliance with mitigation set forth in the Roseville Regional Wastewater Treatment Service Area Master Plan EIR, a 1,000-foot buffer is required around the PGWWTP in which only nonresidential land uses are planned, including the proposed 76-acre regional sports park, portions of the proposed high school site not including school buildings, open space, and industrial uses. Uses permitted and conditionally permitted within this area are identified and discussed in the WRSP and this EIR (Section 4.1, Land Use and Agricultural Resources).

In order to accommodate wastewater from the WRSP and ultimately the Remainder Area, a 15- to 20-acre site is planned in the WRSP immediately south of the PGWWTP for the future expansion of the PGWWTP, which was evaluated in the Roseville Regional Wastewater Treatment Service Area Master Plan EIR. This expansion area is contiguous to the existing PGWWTP site and will be used to site additional wastewater treatment facilities such as storage ponds, secondary treatment facilities and advanced treatment facilities. Fencing and landscaping would be provided similar to the existing facility. A 1,000-foot buffer, which excludes residential uses, would also extend around the expanded PGWWTP site. A capacity and regulatory compliance assessment was performed in July 2003 (Carollo Engineers) determined that potential expansion of the PGWWTP would have sufficient capacity to treat dry weather flows from the proposed project, with minor process adjustments. The additional acreage would accommodate additional effluent storage basins, potentially requiring additional treatment processes, and any potential increase in process trains resulting from increased flows.

Figure 2-9 (West Roseville Specific Plan Wastewater Collection System) illustrates the location of wastewater (or sewer) lines, the direction of flow, and the PGWWTP site.

Recycled Water

Recycled water (tertiary-treated to conform to the California Department of Health Services requirements for "full unrestricted reuse") would be obtained from the PGWWTP and conveyed through a separate recycled water system to the WRSP Area. Recycled water would be used for landscape irrigation of

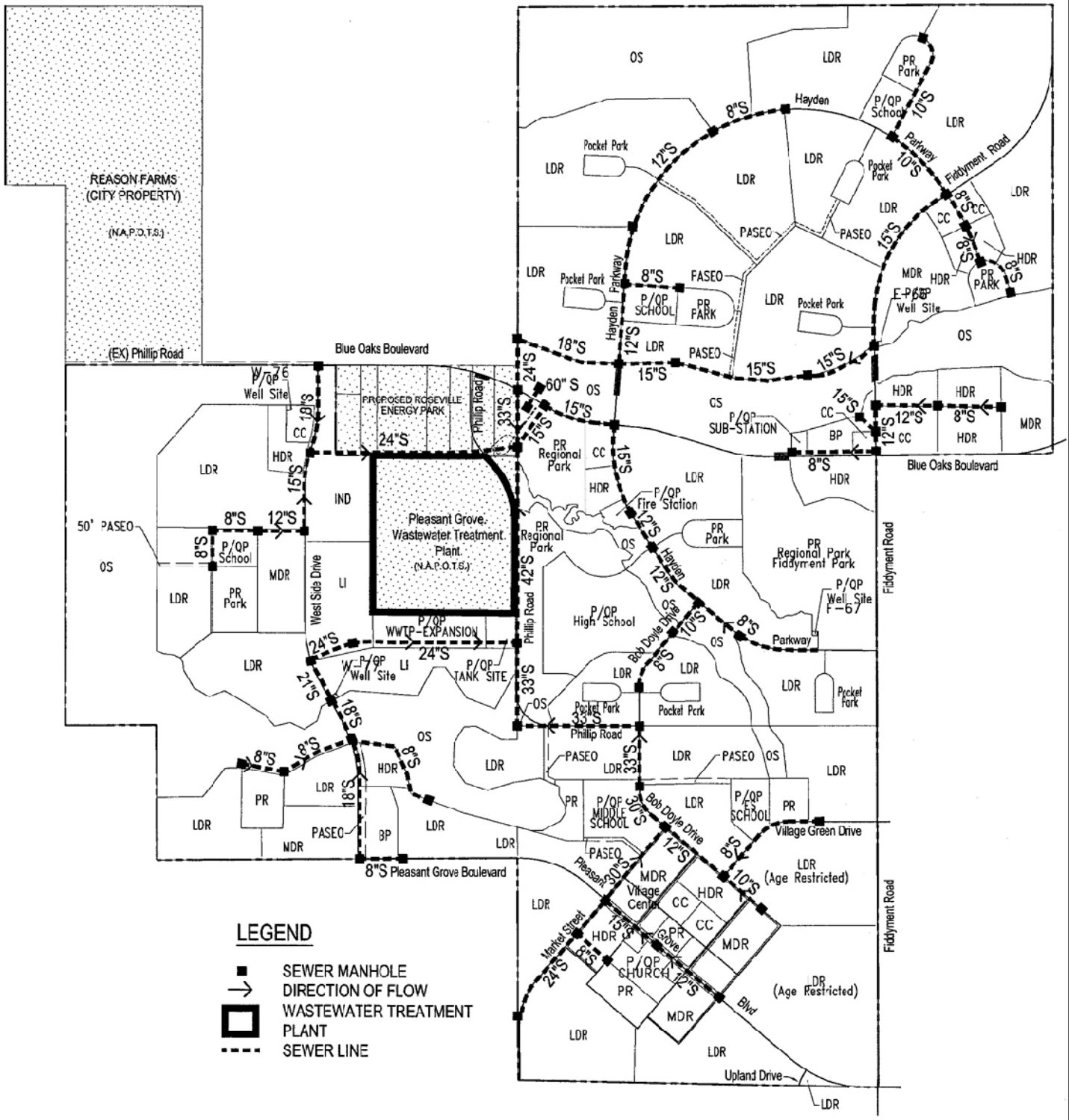


FIGURE **2-9**

West Roseville Specific Plan Wastewater Collection System

Not to Scale

10659-00

Source: West Roseville Specific Plan 2003

City of Roseville

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a 100-year, 24-hour peak event.[5] Basin A would provide approximately 20.0 acre-feet of storage by using two 4-foot-by-10-foot and two 5-foot-by-10-foot box culverts under West Side Drive. The culverts would be placed at varying heights to control low-flow and high-flow conditions. Basin E would include three parks, schools, publicly landscaped areas (e.g., roadway medians, paseos), and commercial, business professional, industrial, and multi-family projects within the WRSP Area. Recycled water conveyance pipelines ranging in diameter from 6 to 24 inches would be installed within street rights-of-way. Two recycled water tanks approximately 25 to 30 feet tall and 75 feet in diameter, with a storage capacity of 850,000 gallons each (1.7 million gallons total), would be located north of the PGWWTP and south of Blue Oaks Boulevard on City-owned land. Figure 2-10 (West Roseville Specific Plan Recycled Water Distribution System and Storage Facility) illustrates the location of the recycled water lines, the recycled water storage tank site and pump station, and the PGWWTP site.

Storm Drainage and Flood Control

The WRSP Area is located within the Curry Creek and Pleasant Grove Creek watersheds. The main branch of Pleasant Grove Creek is in the WRSP Area, Kaseberg Creek, along with several tributaries to Curry Creek. Approximately one-half of the Westpark property is within the Curry Creek drainage watershed and the remainder is in the Pleasant Grove Creek watershed. Nearly all of the Fiddyment Ranch property is located within the Pleasant Grove Creek watershed, with a small portion in the Curry Creek watershed.

Detention basins for temporary water storage would utilize a weir (berm), pump station, or some other device to control the rate at which stormwater is conveyed downstream. During storm events, a detention basin temporarily restricts project flows and slowly releases stormwater downstream to minimize the potential for downstream flooding to occur. In contrast, a retention basin is used to temporarily store water for longer durations to prevent it from increasing downstream flows during major storm events. On-site stormwater detention storage basins are not proposed or needed to manage peak flows for locations in the WRSP Area that are in the Pleasant Grove Creek watershed. Refer to Section 4.12 (Hydrology and Water Quality) for further discussion.

[5] Probabilistic assessments are given to define 10-year, 25-year, and 100-year flood events. For a 100-year flood, for example, this means a given flood event has a one-in-one hundred (1 percent) of occurrence in any given year, or a "return period" of once every 100 years. Such assessments are based upon statistical frequency of collected data. In hydrology, there are actually three types of comparative assessments: 1) rainfall within a given time interval; 2) peak stream flow; or 3) volume of flow caused by a single storm event or sequence. Each of these attributes can be measured and counted as discrete data points, to provide statistical comparison, or frequency analysis. As a consequence, we can have a 100-year storm, a 100-year peak flow event, or a 100-year flood, all of which may or may not be independent of one another.

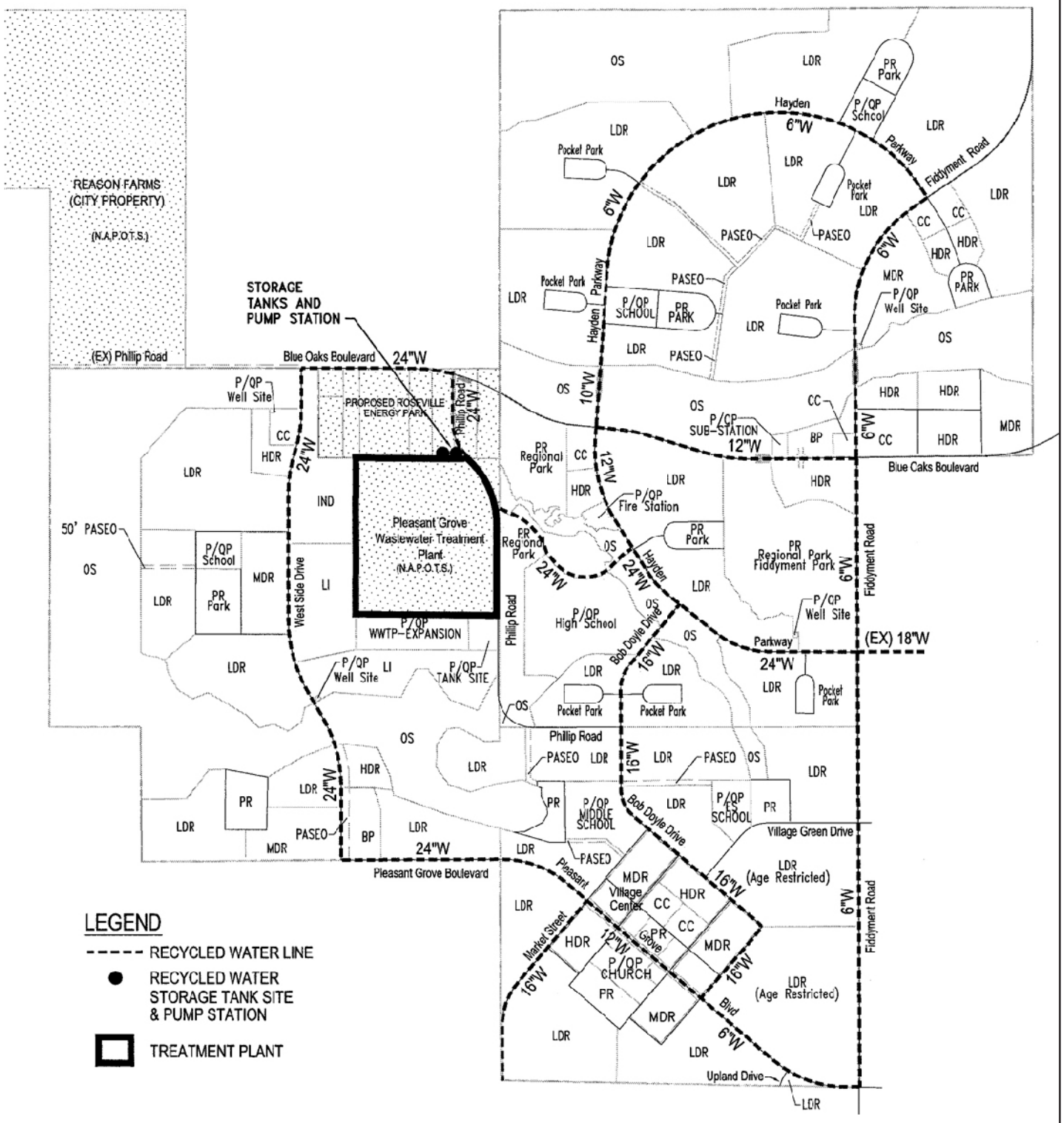


FIGURE **2-10**

West Roseville Specific Plan Recycled Water Distribution System and Storage Facility

Not to Scale

10659-00

Source: West Roseville Specific Plan 2003 City of Roseville

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A total of five (two large and three small) detention basins would be constructed on the Westpark property to serve areas of the WRSP that drain to Curry Creek. The two largest detention basins (Basins A and E) would be constructed in the WRSP Area to temporarily contain stormwater runoff (shown in Figure 4.12-2 [On-Site Drainage Improvements and 100-Year Floodplain], which is provided in Section 4.12, Hydrology and Water Quality, of this document). These basins would provide detention storage for 36-inch culverts and a 6-foot-high weir at the western project boundary where Curry Creek leaves the WRSP Area to detain approximately 38 to 40 acre-feet. The proposed weir would be set at an elevation of 85.5 feet and would be approximately 250 feet long and 30 feet wide. Vehicle access would be permitted along a maintenance road on top of the weir.

Two small basins (Basins C and D) in the southern part of the WRSP Area would provide approximately 8 and 9 acre-feet of storage, respectively, to reduce peak flows. These basins could be located in the WRSP Area or they could be combined into a larger basin located in the Remainder Area. A third basin (Basin B) is proposed to mitigate peak flows to Curry Creek in the northwest portion of the West Park property. This basin would provide approximately 5 acre-feet of storage.

Stormwater flows from the WRSP Area that drains to Pleasant Grove Creek are proposed to be conveyed to a regional retention basin planned for the Reason Farms property north and west of the SOI Amendment Area. Development of the regional retention basin is being undertaken as a separate project recently approved by the City of Roseville. A copy of the Reason Farms EIR is available for review at the City's Permit Center, 311 Vernon Street, Roseville. The retention basin was sized to accommodate stormwater flows from the WRSP and Remainder Area; however, construction of the facility is not contingent on the approval or development of the WRSP or Remainder Area.

Connection of the WRSP to the proposed regional retention basin in the Reason Farms property would not require any off-site improvements other than those identified as part of development of the proposed regional retention basin project.

Urban Runoff Water Quality Best Management Practices (BMPs)

The WRSP drainage system would include water quality BMPs to reduce the types and amounts of pollutants that could be carried in stormwater runoff. These features could include the detention basins in the Curry Creek watershed, which would include low-flow areas to allow pollutants to settle. Grassy swales and vegetated channels could be used to remove pollutants by filtration. These features would typically be situated at outfalls in the WRSP Area, and the WRSP provides several open space areas that could be used for such features. Oil/water grit separators or sand filter systems could be used in

commercial, industrial, or other areas where higher-than-normal levels of pollutants could be generated. Constructed wetlands, which are shallow pools with or without open water elements that create growing conditions suitable for marsh plants, provide treatment by decreasing flow velocities. However, constructed wetlands require additional land and sources of flow that may not be available in the WRSP Area.

The specific water quality BMPs that could be used in the WRSP Area are still undergoing review by the City of Roseville in the context of the proposed drainage facilities and with regard to the City's Stormwater Management Plan prepared in March 2003 in accordance with federal and State water quality requirements. It is possible that the BMPs listed above, either individually or in combination, may need to be refined at the tentative map stage. In addition, when more detailed information is developed for each land use (e.g., tentative map), actual design for target pollutant identification and specific BMPs, such as vegetative planting, would also be necessary.

Police and Fire Protection

The Roseville Police Department (RPD) would provide police services. The RPD provides all operations and patrols from its central station located on Junction Boulevard, approximately 4 miles from the WRSP Area.

The Roseville Fire Department (RFD) would provide fire protection, suppression, emergency medical service, and hazardous materials management services to the WRSP Area. Within the WRSP Area, a fire station site is proposed on a 3.1-acre site on Hayden Parkway south of Blue Oaks Boulevard. The proposed fire station would serve the WRSP Area.

Solid Waste

The City of Roseville would provide solid waste services for the WRSP Area. Solid waste would be disposed of at the Western Placer Waste Management facility located northwest of the City of Athens and Fiddyment Roads.

A solid waste recycling area is planned within the WRSP on the west side of Phillip Road, south of the PGWWTP.

Electrical Service

The entire WRSP Area is currently within the service area of Pacific Gas & Electric (PG&E) for electric service. If annexed, it is proposed that Roseville Electric, which provides electric service to the City would provide electric service to the WRSP Area. Electricity would be supplied to the site through

existing facilities and/or proposed facilities. New transmission lines would be constructed as part of the WRSP.

The City's current Electric Master Plan calls for constructing a loop system of 60 kilovolt (kV) overhead lines along the north side of Blue Oaks Boulevard from Woodcreek Oaks Boulevard (off site) going west to Phillip Road, where it will travel south to the PGWWTP and then west along the northern boundary of the PGWWTP to its westernmost boundary. The line will then travel south (through a 35-foot easement) along the west side of the PGWWTP, to just south of the project site, ultimately connecting to the existing Fiddyment Substation. The proposed alignment requires the purchase of off-site easements. Included on Figure 4.11-7 is an alternative 60 kV power line alignment. If the off-site easements for the proposed 60 kV alignments are not obtained at the beginning of Phase I, the alternative alignment will be constructed. The alternative alignment follows Pleasant Grove Boulevard east through the Village Center to the Fiddyment substation. Figure 4.11-7 also identifies a reserved location along the west side of Fiddyment Road for future 60 kV lines, if needed. Figure 2-11 (West Roseville Specific Plan Electric Substation and 60 kV Power Line Easements) illustrates the location of proposed 60 kV electrical line as well as alternative alignments for the 60 kV line.

A new electric distribution substation is planned north of Blue Oaks Boulevard, between Hayden Parkway and Fiddyment Road. The substation would be on a 1.6-acre site with a 12-foot-high fence surrounded by a landscape buffer. Electrical structures associated with the substation would range in height from 10 to 40 feet. Approximately two 60-foot-tall, 60 kV tubular steel poles would also be installed in order to connect the substation to the proposed power lines along Blue Oaks Boulevard. A paved driveway would be installed within the substation for internal circulation of vehicles.

The substation would contain equipment to switch, transform, and regulate voltage for electrical transmission and distribution. Electrical power would enter the substation through 60 kV lines and leave the substation via distribution lines at 12 kV. Transformer bank(s), breakers, switches, and other electrical equipment would be used to transform the voltage.

Natural Gas

Natural gas would be provided by PG&E. PG&E maintains a 6-inch high-pressure gas main on the east side of Fiddyment Road that would serve a portion of the WRSP Area. PG&E's existing facilities in Blue Oaks Boulevard and Fiddyment Road may be extended to serve the WRSP Area based on development

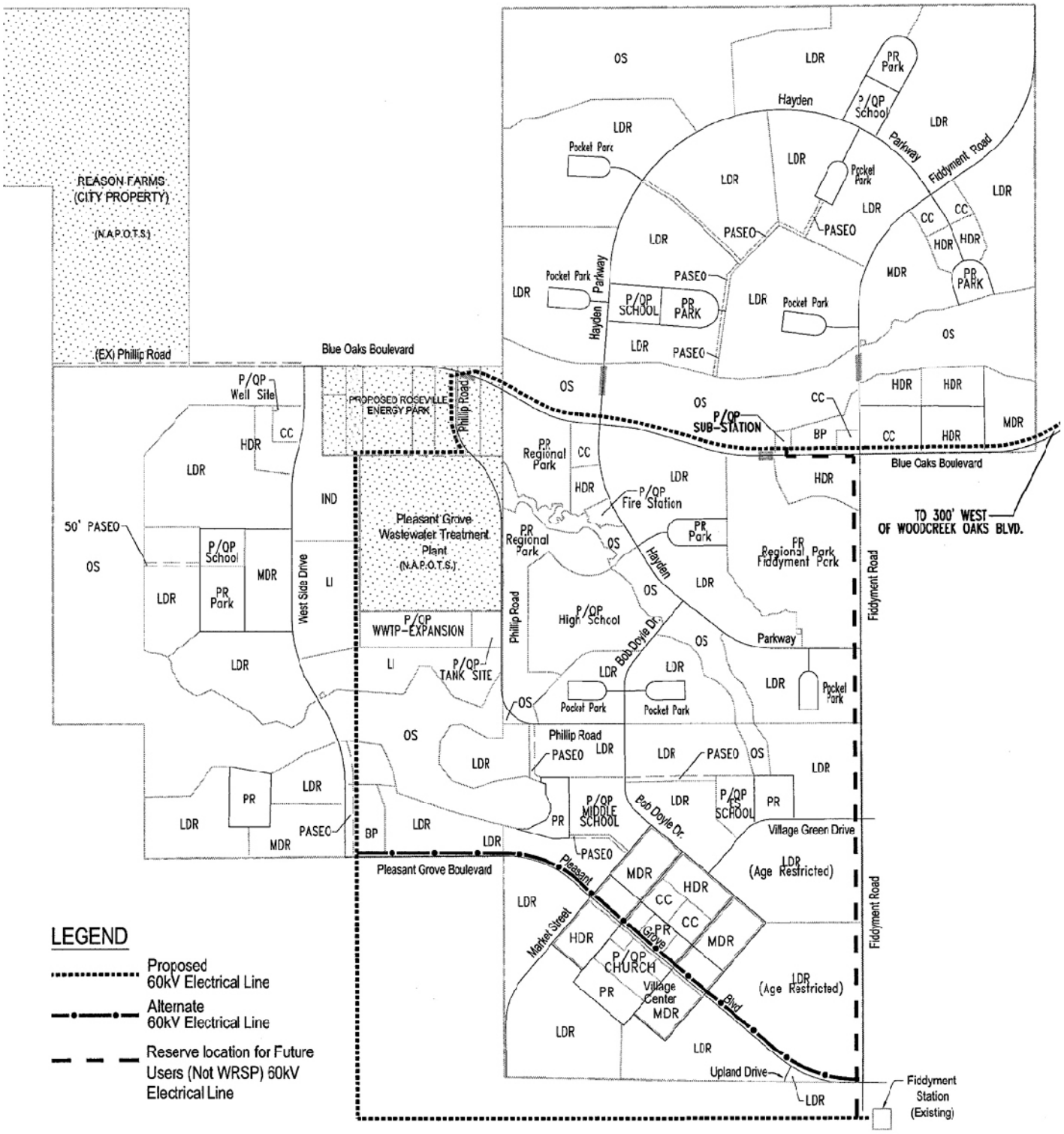


FIGURE **2-11**

West Roseville Specific Plan Electric Substation and 60kV Power Line Easements

Not to Scale

10659-00

Source: West Roseville Specific Plan 2003

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needs. Ultimately, a new natural gas regulator station may be required to serve the WRSP (shown in Figure 4.11-8, in Section 4.11, Public Utilities). The need for further natural gas infrastructure would be determined prior to each development component in the WRSP Area.

Street Lighting

Street lighting would be provided along all roadways and in parks in the WRSP Area at intervals in accordance with City standards.

On-Site Improvements

Proposed on-site improvements would include roadways; bridges across Pleasant Grove Creek and Kaseberg Creek; a bike and multi-use trail system; water, sewer, and recycled water lines; power lines; storm drains; water wells and potable water storage tanks; an electric substation; and transit facilities. Each of these components is described in more detail in Section 4.3 (Transportation and Circulation) and Section 4.11 (Public Utilities).

Off-Site Improvements

Proposed off-site improvements include the extension of water, wastewater, and recycled water, and natural gas lines, as well as power lines, roadway extensions and widenings, bridge widenings, and Class I bike trails as a possible use in the power line easements.

The following is a description of proposed off-site improvements that correspond to the map numbers shown on Figure 2-12(a) (Off-Site Improvements [1 of 2]) and Figure 2-12(b) (Off-Site Improvements [2 of 2]).

1. **Widen Blue Oaks Boulevard West of Foothills Boulevard East of WRSP Area**

   Construct the northern half section (two westbound travel lanes) of Blue Oaks Boulevard located approximately 1.5 miles east of the Fiddyment Ranch property boundary and 1,200 feet west of Foothills Boulevard including travel lanes, landscaped median, curb, gutter and streetlights. The southern half of the road section is already constructed.

2. **Widen Pleasant Grove Boulevard East of WRSP Area**

   Portions of Pleasant Grove Boulevard would be widened from two to four lanes east of the WRSP and west of Woodcreek Oaks Boulevard for a distance of approximately 5,000 feet to Sun City Boulevard. Portions of Pleasant Grove Boulevard between Woodcreek Oaks Boulevard and Fiddyment Road were constructed as part of previous development projects (e.g., Del Webb Specific Plan, North Roseville Specific Plan). The portion of Pleasant Grove Boulevard immediately east of Fiddyment Road is four lanes wide and does not require further

Figure 2-12a Off-Site Improvements (1 of 2)

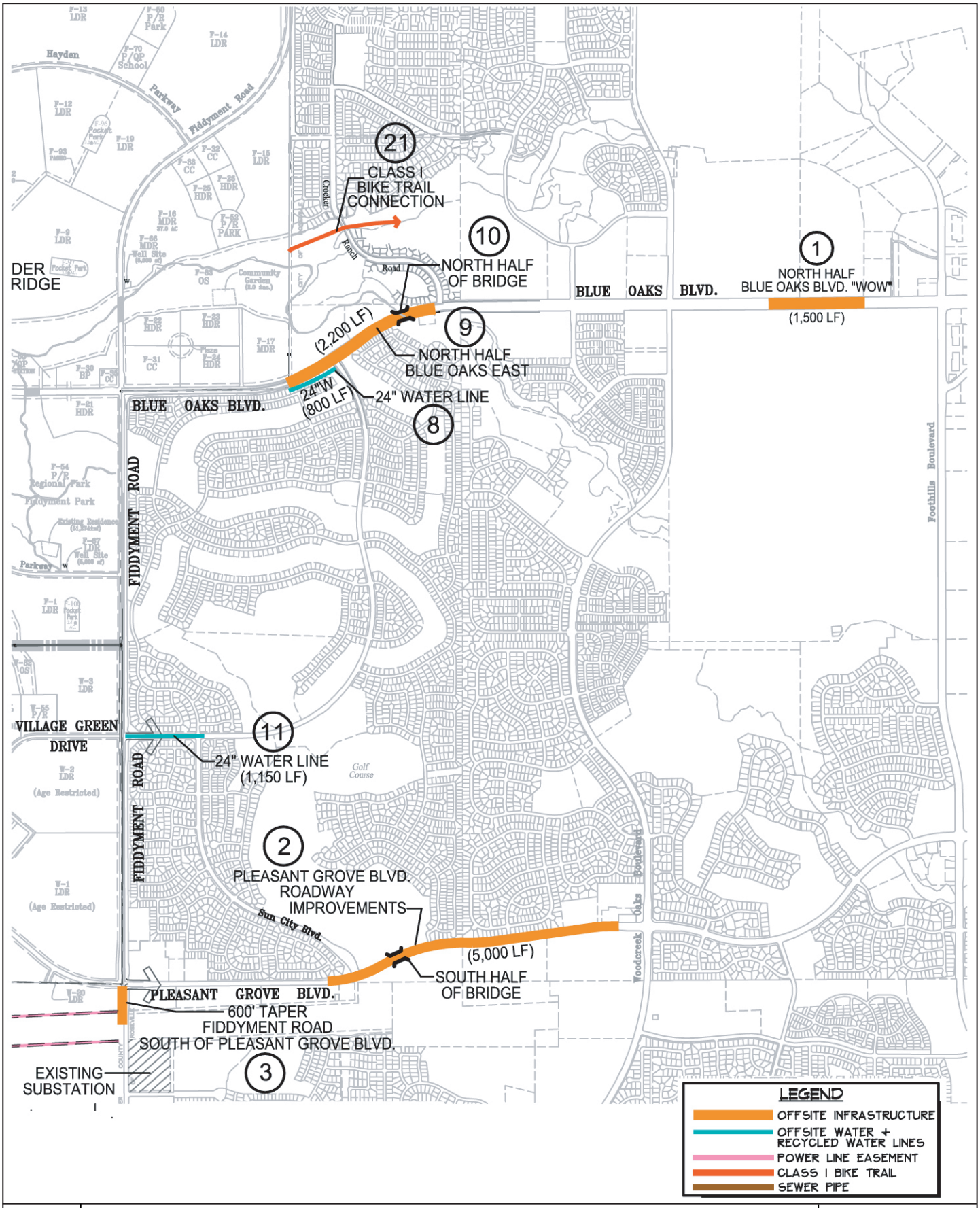


FIGURE **2-12a**

Off-Site Improvements (1 of 2)

Scale: 1" = 1000'

10659-00

Source: Wood ROgers

City of Roseville

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Figure 2-12b Off-Site Improvements (2 of 2)

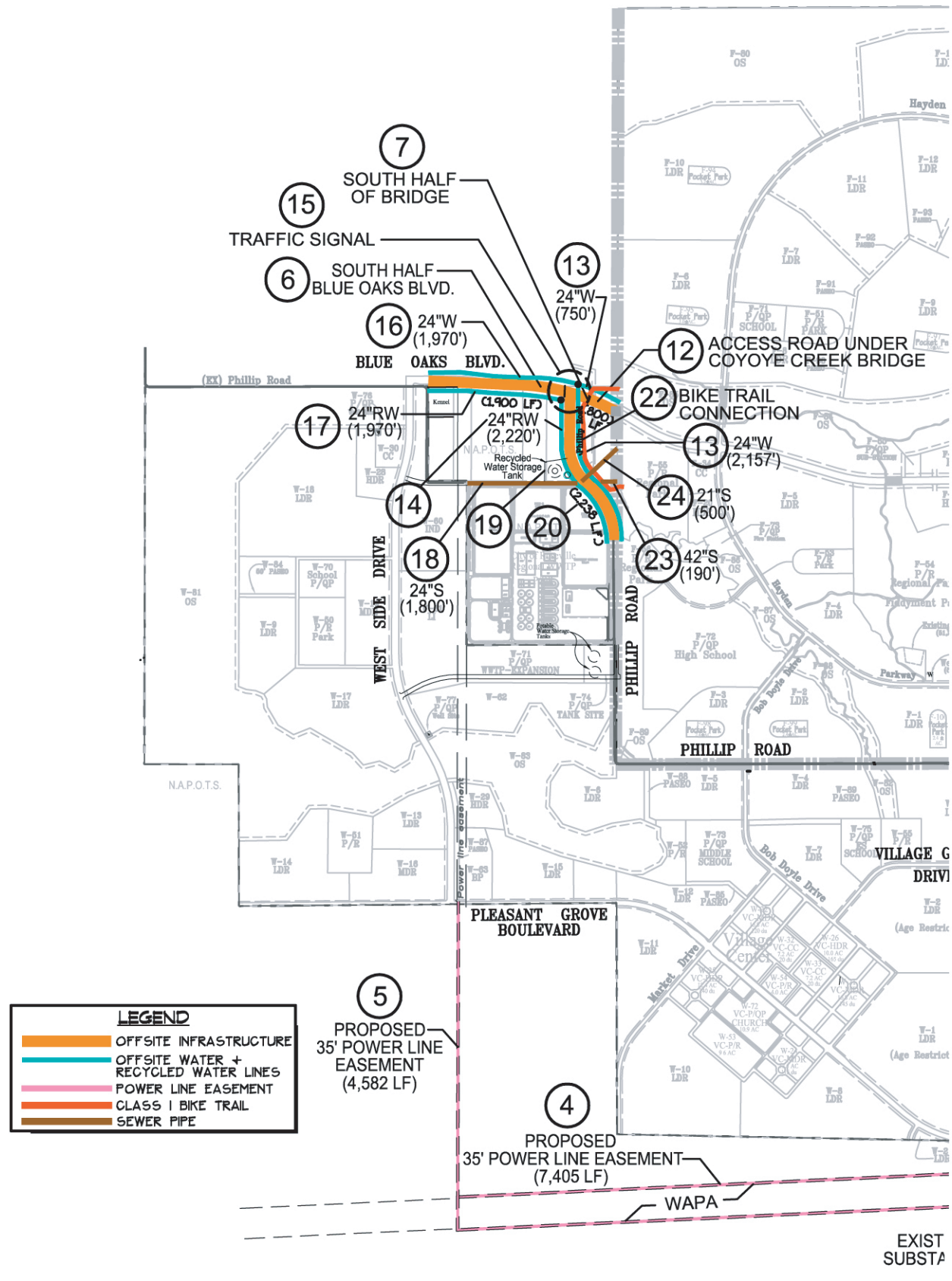


FIGURE **2-12b**

Off-Site Improvements (2 of 2)

Scale: 1" = 1000'

10659-00

Source: Wood ROgers

City of Roseville

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improvements. Widening Pleasant Grove Boulevard includes travel lanes, curb, gutter, and streetlights and will require construction of the southern half of the Pleasant Grove Boulevard bridge over the southern branch of Pleasant Grove Creek, east of Sun City Boulevard.

3. **Construct Fiddyment Road Taper South of Pleasant Grove Boulevard, South of WRSP Area**

   Roadway tapers would be constructed on Fiddyment Road for a distance of approximately 600 feet south of the intersection with Pleasant Grove Boulevard including median, travel lanes, bike lanes, curb, gutters, joint trench, all in-street utilities and traffic barriers to provide a safe transition to existing Fiddyment Road (two lanes) to the south.

4. **Extend 35-foot-wide Power Line Easement (East/West) South of WRSP Area**

   A 35-foot-wide power line easement would be extended in an east/west direction to accommodate a 60 kV power line. The extension would connect the proposed power line corridor running in a north/south direction and the electric substation located east of Fiddyment Road and south of Pleasant Grove Boulevard. The length of the power line easement is approximately 7,405 feet. The power line easement is located south of the WRSP in the Remainder Area and roughly parallel to the northern boundary of the WRSP boundary.

   The timing of this improvement is dependent on the City's need to connect the electric loop to the Fiddyment Receiving Station and may or may not be necessary for the development of the WRSP. This improvement will be constructed by the City based on the need for the power line corridor.

5. **Extend 35-foot-wide Power Line Easement (North/South) South of WRSP Area**

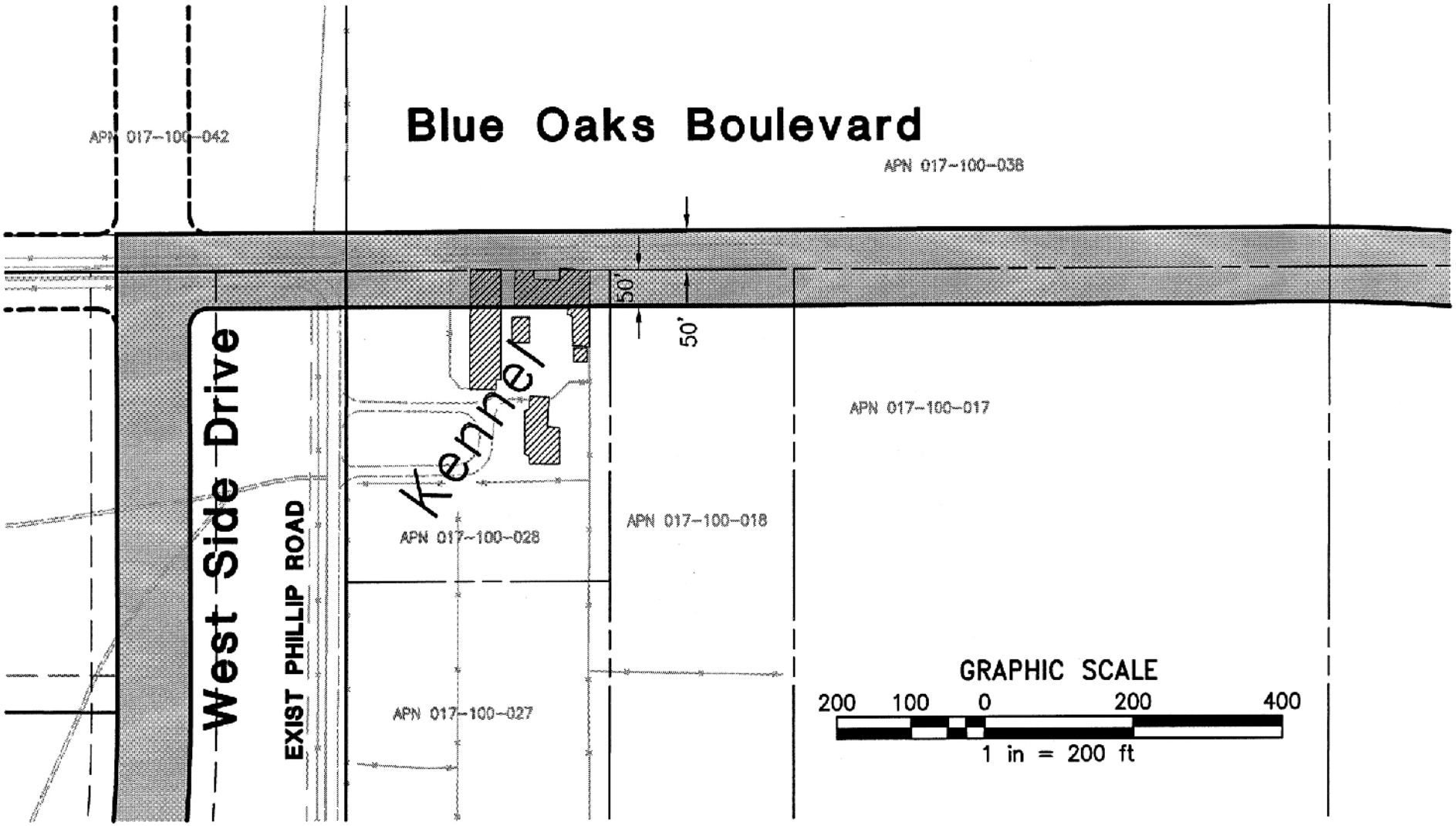
   A 35-foot-wide power line easement would be extended in a southerly direction south of the WRSP to connect with the power line located south of the WRSP. The easement could accommodate a 60 kV power line necessary to complete a 60 kV loop for the WRSP Area. The power line easement is an extension of the corridor located within the WRSP boundaries. The length of the power line easement is approximately 4,582 feet.

   The timing of this improvement is dependent on the City's need to connect the electric loop to the Fiddyment Receiving Station and may or may not be necessary for the development of the WRSP. This improvement will be constructed by the City based on the need for the power line corridor.

6. **Construct Blue Oaks Boulevard North of WRSP Area**

   The southern half of Blue Oaks Boulevard would be constructed from the northeast corner of the Westpark property to the western boundary of the Fiddyment Ranch property (a distance of approximately 2,770 feet) north of the existing kennel and the City-owned property north of the PGWWTP. Improvements would consist of constructing three travel lanes, bike lane, curbs, gutters, sidewalks, streetlights, joint trench, and all in-street utilities.

   This alignment would require acquisition of a portion of parcel 017-100-028 (occupied by a residence and dog kennel), as shown in Figure 2-13 (West Roseville Specific Plan Blue Oaks Alignment [Alternative 1]). Figure 2-14 (West Roseville Specific Plan Blue Oaks Alignment [Alternative 2]) depicts an alternative alignment that would avoid impacts to the kennel.



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FIGURE **2-13**

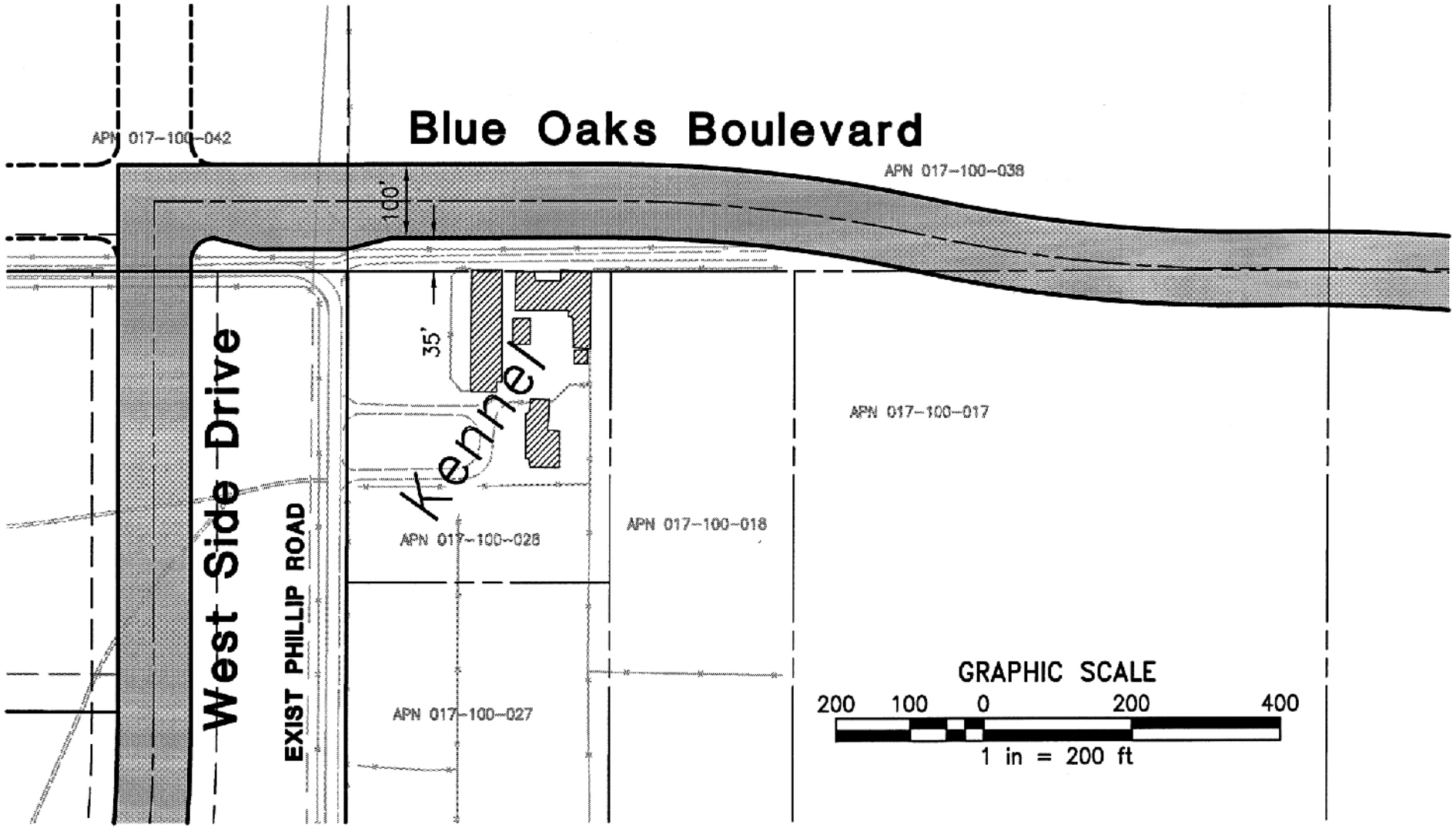
West Roseville Specifc Plan Blue Oaks Alignment (Alternative 1)

Source: Morton & Pitalo, Inc.

City of Roseville

Scale: 1" = 200 '

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10659-00

FIGURE **2-14**

West Roseville Specifc Plan Blue Oaks Alignment (Alternative 2)

Source: Morton & Pitalo, Inc.

City of Roseville

Scale: 1" = 200 '

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7. **Construct Blue Oaks Boulevard Bridge over Pleasant Grove Creek (Coyote Creek) East of Phillip Road and North of WRSP Area**

   A bridge on Blue Oaks Boulevard would be constructed over Pleasant Grove Creek (Coyote Creek) located approximately 400 feet west of the Fiddyment Ranch boundary (west of the northwest corner of parcel F-55) to provide three travel lanes, Class II bike lanes, curbs, gutters, sidewalks, handrails, barriers, streetlights, joint trench, and all in-street utilities on the south side of Blue Oaks Boulevard. The crossing at this location is a single three-span bridge approximately 100 feet in length and 54 feet in width.

8. **Construct 24-inch Water Line in Blue Oaks Boulevard East of WRSP Area**

   A 24-inch water line would be installed in Blue Oaks Boulevard from the eastern project boundary easterly for a distance of approximately 800 feet to the intersection of Blue Oaks Boulevard/Del Webb Boulevard.

9. **Widen Blue Oaks Boulevard Immediately East of WRSP Area**

   The northern half section of Blue Oaks Boulevard would be widened to include landscaped median, three travel lanes, bike lanes, curbs, gutters, streetlights, joint trench, and all in-street utilities from the eastern property boundary of the WRSP Area east to the existing transition from Crocker Ranch Road east of the future bridge at the South Branch of Pleasant Grove Creek, for a distance of approximately 2,220 feet.

10. **Construct Blue Oaks Boulevard Bridge across Pleasant Grove Creek East of WRSP Area**

    Construct northern half of the Blue Oaks Boulevard Bridge across the South Branch of Pleasant Grove Creek west of Crocker Ranch Road to provide three additional travel lanes, Class II bike lanes, curbs, gutters, sidewalks, handrails, streetlights, joint trench, and all in-street utilities. Full bridge improvements would be constructed to accommodate six lanes of Blue Oaks Boulevard.

11. **Construct 24-inch Water Line in Del Webb Boulevard East of WRSP Area**

    A 24-inch water line would be installed in Del Webb Boulevard from Fiddyment Road east to the intersection of Timberrose Way/Del Webb Boulevard for a distance of approximately 1,150 feet.

12. **Construct Access Road under Coyote Creek Bridge North of WRSP Area**

    An access road from the influent junction structure under the Coyote Creek Bridge would be paved to connect to the effluent outfall structure.

13. **Construct 24-inch Water Line in Blue Oaks Boulevard North of WRSP Area**

    A 24-inch water line and appurtenances in Blue Oaks Boulevard would be constructed from the westerly boundary of the Fiddyment Ranch property near the northwest corner of Parcel F-55 west to the intersection with Phillip Road and southerly on Phillip Road to the northerly terminus of the on-site 24-inch water line on site for a distance of approximately 2,907 feet.

14. Construct a 24-inch Recycled Water Line in Phillip Road North of WRSP Area

A 24-inch recycled water line and appurtenances in Phillip Road would be constructed from the northwest corner of parcel F-56 to the intersection with Blue Oaks Boulevard for a distance of approximately 2,220 feet.

15. Construct Traffic Signal at Phillip Road and Blue Oaks Boulevard North of WRSP Area

Traffic signal improvements, including striping and signage, would be constructed at the intersection of Phillip Road and Blue Oaks Boulevard.

16. Construct 24-inch Water Line in Blue Oaks Boulevard North of WRSP Area

A 24-inch water line and appurtenances in Blue Oaks Boulevard would be constructed from the Westpark eastern property line to Phillip Road for a distance of approximately 1,970 feet.

17. Construct a 24-inch Recycled Water Line in Blue Oaks Boulevard North of WRSP Area

A 24-inch recycled water line and appurtenances in Blue Oaks Boulevard would be constructed from the northeast boundary of the Westpark property near the northeast corner of Parcel W-60 east to the intersection with Phillip Road and southerly on Phillip Road to the connection with the recycled water storage tank for a distance of approximately 1,970 feet.

18. Construct a 24-inch Sewer Line North of WRSP Area

A 24-inch sewer line from the northeast corner of parcel W-60 east to the connection at the PGWWTP would be constructed for a distance of approximately 1,800 feet.

19. Construct Recycled Water Tanks North of WRSP Area

Two 850,000 gallon recycled water storage tanks and all appurtenances would be constructed on City-owned property south of Blue Oaks Boulevard and west of Phillip Road. The tanks would be constructed in the southeast corner of the City-owned property.

20. Construct Phillip Road North to Blue Oaks Boulevard

Phillip Road would be constructed from northwest corner of Parcel F-56 to Blue Oaks Boulevard for a distance of approximately 2,240 feet, including a full section for the modified collector with two travel lanes, bike lanes, curbs, gutters, joint trench, street lights and in-street utilities.

21. Construct Bike Trail Connection East to Parcel F-83 to Veteran's Park

A bike trail connection would be constructed from the easterly boundary of Parcel F-83 to the existing Class I bike path located in Veteran's Park east of the WRSP. The bike path connection would utilize the existing access easement road.

22. Construct Bike Trail West from Parcel F-85 to Regional Park

A bike trail connection would be constructed from the west side of Parcel F-85 south to connect to the trail in the Regional Park (Parcel F-56).

23. Construct a 42-inch Sewer Line across Phillip Road to PGWWTP

A 42-inch sewer line and appurtenances would be constructed across Phillip Road from the west side of Parcel F-55 west to the PGWWTP.

24. Construct 21-inch Sewer Line across Phillip Road to PGWWTP

A 21-inch sewer line would be constructed across Phillip Road from the west side of Parcel F-55 west to the connection at the PGWWTP.

Resource Management

The Resource Management Element of the WRSP is intended to ensure compliance with the City of Roseville General Plan Open Space and Conservation Element.

Wetland Resources

A variety of wetlands are located in the WRSP Area, including vernal pool complexes, drainage swales, and stream corridors. A total of 63.89 acres of verified wetlands or "other waters" have been identified on the WRSP Area, including 33.91 acres of vernal pools, 25.44 acres of wet swales/channel, 3.92 acres of seasonal wetland, and 0.62 acre of emergent marsh. The greatest concentration of vernal pools is located in the northwest corner of the Fiddyment Ranch property. It is estimated that 40.65 acres, or 64 percent, of the wetlands will be preserved; however, full development would result in the need to "fill" a portion of the wetlands and, thus, would require a permit issued by the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act, in connection with the U.S. Fish & Wildlife Service.

Riparian and Oak Woodland Resources

In the Westpark portion of the WRSP Area, only one native oak tree exists. This tree is proposed to be preserved and protected as part of the WRSP. The majority of the riparian and oak woodlands is located along Pleasant Grove Creek and Fiddyment Road within the Fiddyment Ranch portion of the WRSP Area. Most of the oak woodland would be preserved within the creek corridor and within a proposed 91-acre oak woodland Citywide park (Fiddyment Park). However, some tree removal may be necessary to accommodate road crossings, pathway crossings, and linear trails (refer to discussion in Section 4.7, Biological Resources). Any removal of native oak trees would be subject to the City's Tree Preservation requirements set forth in Chapter 19.66 of the Roseville Zoning Ordinance.

Fiddyment Ranch Historic Resources

The historic Fiddyment Ranch Main Complex has been identified as meeting the California and National Registers criteria for the role it played in the social and economic development of Roseville. It is

anticipated that the Fiddyment Ranch Main Complex would be preserved within the Sports Park as a community facility available for future use by the City. The precise use and disposition of the buildings and associated grounds will be determined as part of the facilities planning for the Sports Park. Refer to Section 4.8 Cultural Resources, for a description of the resources.

2.4.3 Implementation

Development Agreements

The WRSP will be implemented through Development Agreements between the City of Roseville and each of the landowner groups (Westpark Associates and Signature Properties, Inc.), in accordance with Article V, Chapter 19.84 of Ordinance 3014 of the Roseville Municipal Code. The agreements are binding contracts between the City and the landowners and set the terms, conditions, rules, regulations, entitlements, vested rights, and other provisions relating to development of the WRSP Area. Included in the Development Agreements would be conditions related to the provision of infrastructure improvements, public dedication requirements, landscaping amenities, and other obligations of the parties. The term of the Development Agreements would be 20 years. The Agreements are tied to the property and may only be modified by mutual consent of the City and the landowner.

Zoning

All lands within the WRSP would be zoned consistent with the zoning classifications of the Roseville Zoning Code, as proposed to be amended with approved of the Specific Plan. The development standards and guidelines for each zoning district are described in the WRSP and City Design Guidelines. A revision to the zoning code is proposed as part of the project to increase the coverage for single-family residential, one-story lots in the R1 Zone from 40 to 45 percent.

Subsequent Entitlements

Development under the WRSP would be subject to approval of subsequent entitlements by the City in accordance with the Zoning Code and Roseville Municipal Code. Subsequent entitlements may include subdivision maps and design review permits.

Dedications

All property to be conveyed to the City, including parks, open space, well sites, electric substation site, water tank site, fire station site, and street rights-of-way, would be free of any liens, monetary

encumbrances, special taxes, hazardous materials, environmental constraints, or assessments not approved by the City.

Financing of Public Improvements

The development of the public improvements necessary to serve the residents within the WRSP Area would be funded through a variety of mechanisms, such as the levy of a special tax or fee, or the establishment of a Community Facilities District (CFD) and/or statutory assessment districts. The specific methods of financing public improvements are described in the Development Agreements between the City and the landowners.

Project Schedule and Phasing

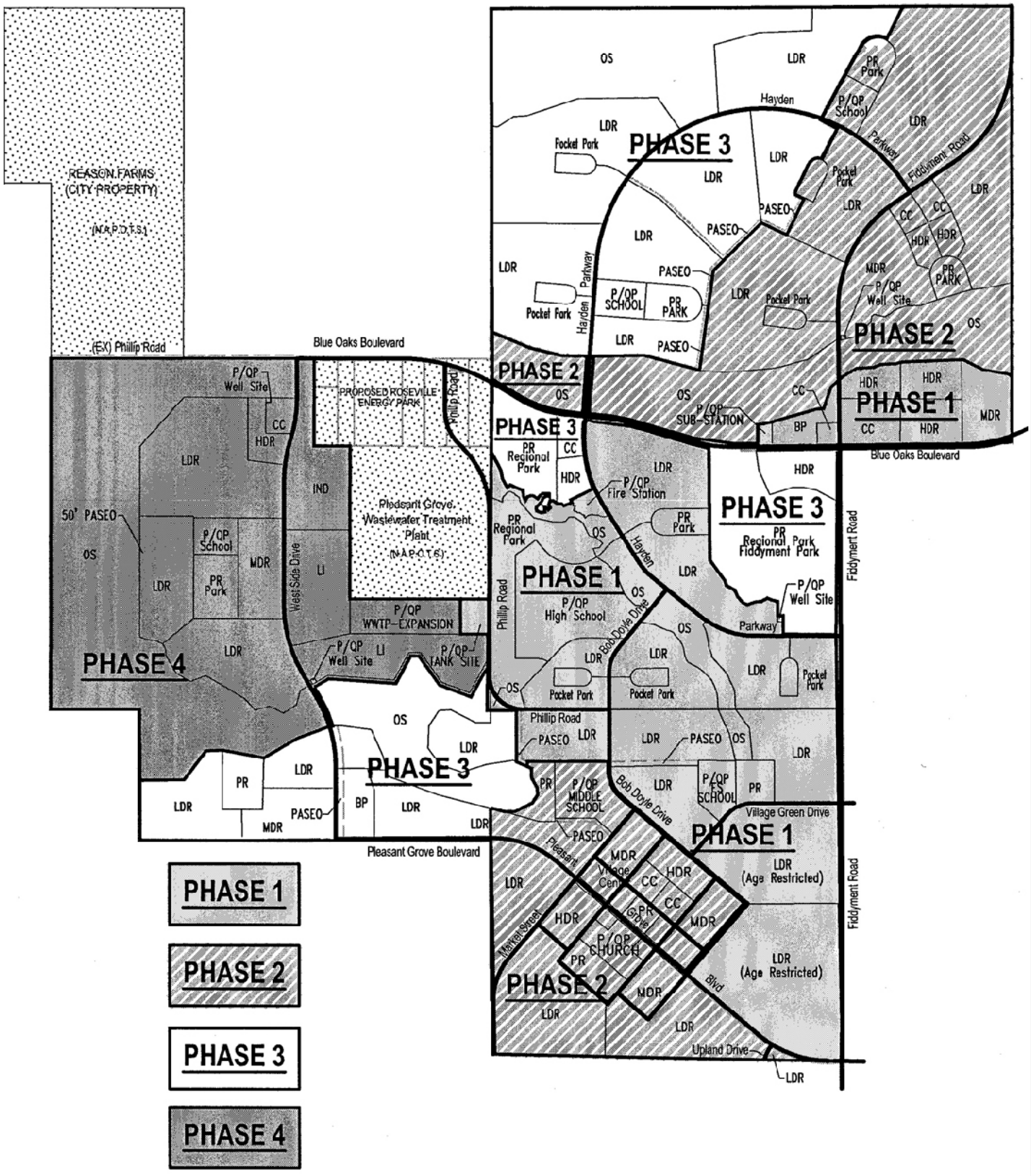
It is anticipated that project construction would commence in year 2004/05 and be complete by year 2019/20, depending on market conditions. Construction of the WRSP is proposed in phases, as shown on Figure 2-15 (West Roseville Specific Plan Project Phasing).

As shown on Table 2-3 and Figure 2-15, the high school, an elementary school, electric substation, fire station, a portion of the regional sports park, some commercial and business professional, approximately 2,807 residential units, including age-restricted units along with roadways, sewer, storm drainage, and water lines to serve the new uses would be constructed in Phase 1. Phase 2 would include construction of the Village Center, along with the middle school and an elementary school. A total of 2,687 residential units and 9.3 acres of community commercial uses would be developed under Phase 2, along with roadway and utility connections. Phase 3 would include construction of both Fiddyment Park and the remaining portion of the regional sports park, one elementary school, business professional, and residential uses. A total of 2,011 residential units would be developed in Phase 3. Phase 4 would include development of the western portion of the WRSP, which includes an elementary school, residential, industrial, and light industrial uses. A total of 925 residential units would be developed under Phase 4.

2.4.4 Proposed General Plan Amendments

The following are the proposed General Plan Amendments, including conforming amendments, that would incorporate the SOI Amendment, including the WRSP, into the City's General Plan.

The City's Land Use Allocation policy in the General Plan would be amended from 47,500 to 55,930 dwelling units to increase the City's residential dwelling units to include the additional 8,430 dwelling units that would result from development of the WRSP (refer to Policies: Growth Management—Land Use Allocation [LUA]). The current dwelling unit cap is based on planned and approved development



10659-00

FIGURE **2-15**

West Roseville Specific Plan Project Phasing

Not to Scale

Source: West Roseville Specific Plan 2003 City of Roseville

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Table 2-3 Phasing for Development of the WRSP

Land Use	Phase 1	Phase 2	Phase 3	Phase 4
Low Density Residential	1,213 du 307 ac	1,479 du 413 ac	1,565 du 484 ac	585 du 149 ac
Low Density (age-restricted)	710 du 146 ac	0	0	0
Medium Density Residential	174 du 17 ac	185 du 37 ac	160 du 20 ac	165 du 21 ac
High-Density Residential	710 du 52 ac	198 du 11 ac	286 du 14 ac	175 du 9 ac
Community Commercial	15 ac	9 ac	5 ac	4 ac
Business Professional	9 ac	0	10 ac	0
Village Commercial/Residential	0	785 du 68 ac	0	0
Village Commercial/Community Commercial	0	40 du 14 ac	0	0
Light Industrial	0	0	0	74 ac
General Industrial	0	0	0	34 ac
Open Space	40 ac	136 ac	236 ac	267 ac
Pocket Park	7 ac	6 ac	6 ac	0
Park	63 acc	57 ac	141 ac	14 ac
Paseo	4 ac	0	9 ac	.9 ac
Public/Quasi Public	72 ac	28 ac	8 ac	30 ac
Total du or ac	***2,807 du 787 ac***	***2,687 du 809 ac***	***2,011 du 958 ac***	***925 du 616 ac***

NOTES:
ac = acres
du = dwelling units
Minor adjustments to totals due to rounding.
SOURCE: Wood Rodgers, August 29, 2003

within the existing City boundaries. The residential development proposed in the WRSP would exceed the development assumed in the current General Plan and could not occur unless the DU cap were increased. The change in the General Plan policy does not include the DU assumed in the Remainder Area because that area is not proposed for annexation at this time, nor has the City received any development applications for the Remainder Area. If the City receives a request for annexation of the Remainder Area, the City would consider additional amendments to the General Plan at that time.

Other proposed General Plan amendments included in the proposed project would be creation of the Village Center General Plan Land Use Combining designation and modification to General Plan Standards needed to accommodate the WRSP.

In addition, listed below are proposed amendments to General Plan goals and policies. New text is indicated in double underline, and deleted text is indicated by strikeout.

Goals: Growth Management

Goal 10 ***Growth should be planned in a way that creates a proper interface with County Lands.***

Goal 11 ***New development should be designed to meet the Guiding Principles.***

Goal 12 ***The City shall use growth management as a tool to maintain the City's identity, community form, and reputation in the region, to maintain high levels of service for residents, and to the extent feasible, to influence projects outside the City's boundaries that have the potential to affect the quality of life and/or services that are provided to residents.***

Goal 13 ***New development to the west of Fiddyment Road shall be consistent with the City's desire to establish an edge along the western boundary of the City that fosters: a physical separation from County lands through a system of connected open space; a well-defined sense of entry to the City from the west; opportunities for habitat preservation and recreation; and view preservation corridors that provide an aesthetic and recreational resource for residents.***

Policies: Growth Management—General (G)

6. The City shall use the specific plan process to ensure a comprehensive, logical growth process for new development areas (e.g., ~~urban reserves,~~ annexations) or any areas where significant land use changes are considered.

Policies: Growth Management—Growth Areas (GA)

5. Apply the City's adopted Guiding Principles to any new development proposed in and out of the City's corporate boundaries, which is not already part of an adopted Specific Plan or within the infill area:

    1. Any development proposal west of Roseville shall, on a stand-alone basis, have an overall neutral or positive fiscal impact on the City's General Fund Services.

    2. Any development proposal west of Roseville shall include logical growth/plan boundaries and an east to west growth pattern.

    3. Any development proposal west of Roseville shall not conflict with the Pleasant Grove Wastewater Treatment Plant and future Power Generation Facility.

    4. Any development proposal west of Roseville shall maintain the integrity of existing neighborhoods and create a sense of place in new neighborhoods.

    5. Any development proposal west of Roseville shall include a plan to ensure full funding and maintenance of improvements and services at no cost to existing residents (including increased utility rates). A proposal shall not burden/increase the cost, or diminish the supply and reliability of services.

    6. Any development proposal west of Roseville shall aid in regional traffic solutions and in right of way preservation.

7. Any development proposal west of Roseville shall secure and provide a new source and supply of surface water and should include reduced water demand through the use of recycled water and other off-sets.

8. Any development proposal west of Roseville shall consider development potential within the entire City/County Memorandum of Understanding Transition Area in the design and sizing of infrastructure improvements.

9. Any development proposal west of Roseville shall aid in resolution of regional storm water retention.

10. Any development proposal west of Roseville shall incorporate mechanisms to ensure new schools are available to serve the residents and shall not impact existing schools.

11. Any development proposal west of Roseville shall include a significant interconnected public open space component/conservation plan in coordination with the City of Roseville/ U.S. Fish and Wildlife Service Memorandum of Understanding.

12. Any development proposal west of Roseville shall include a public participation component to keep the public informed and solicit feedback throughout the specific plan process.

13. Any development proposal west of Roseville shall provide a "public benefit" to the City and residents.

6. As new development is proposed in the City's Sphere of Influence to the west of Fiddyment Road, require project proponents to provide a transitional area between City and County lands, through a system of interconnecting Open Space land blocks.

7. Monitor and participate in development proposals and/or General Plan updates in Placer County to ensure that potential impacts to City residents are minimized, with respect to traffic, service levels, and other quality of life matters.

8. New development proposals to the west of Fiddyment Road within the County/City Memorandum of Understanding Transition Area shall meet the objectives and terms of the Memorandum of Understanding between the City of Roseville and the County of Placer.

9. For development proposed within Placer County and located adjacent to the City, encourage project proponents to strengthen City edge/transition area by providing open space land blocks that mirror those provided within the City's corporate boundary.

10. Development proposed on the western edge of the City shall provide a minimum 1,320-foot wide open space transition area between City and County lands.

Policies: Growth Management

2.b. Provide entryways at entrances to the City in accordance with the Community-wide Design Guidelines. Where possible, the entryways shall take advantage of and incorporate existing natural resources into the entry treatment. The specific plans shall identify the location and

treatment of the entryways, and shall consider the use of open space, oak regeneration areas, signage and/or special landscaping to create a visual edge or buffer that provides a strong definition to entryways into the City.

Policies: Growth Management—Land Use Allocation (LUA)

1. The City shall, through its land use planning process, capital improvement plans, and facility and service programs, provide a land use allocation of 55,930 dwelling units (inclusive of the 1,000 unit pool) and non-residential entitlements as designated on the General Plan land use map.

Policies: Transportation Systems Management

1. Work with appropriate agencies to develop measures to reduce vehicular travel demand and vehicle miles traveled and meet air quality goals.

Policies: Bikeways/Trails

2. Coordinate Roseville's bikeway and trail system with those of neighboring jurisdictions to provide both local and regional connections.

Goals: Level of Service

Goal 1 ***Maintain an adequate level of transportation service for all of Roseville's residents and employees through a balanced transportation system, which considers automobiles, transit, bicyclists, and pedestrians.***

Policies: Level of Service

1. Maintain a level of service (LOS) "C" standard at 70 percent of all signalized intersections and roadway segments in the City during the p.m. peak hours. Exceptions to the LOS "C" standard may be considered for intersections where the City finds that the required improvements are unacceptable based on established criteria identified in the implementation measures. In addition, Pedestrian Districts may be exempted from the LOS standard.

5. Enable the City to designate a Pedestrian District over a geographic area for the purpose of implementing measures that promote pedestrian walkability. In these districts, the City recognizes that pedestrian travel takes a higher priority than automobile travel, which could reduce the vehicular level of service.

Goals: Open Space System

Goal 5 Consider alternatives to City ownership and management of open space preserves areas.

Policies: Open Space System

7. Maximize opportunities for preservation and maintenance of open space resources, including establishment of private open space areas. Consider coordination with nonprofit organizations and investigate the potential for conservancy ownership and/or management of open space areas.

9. Where feasible, entryways into Roseville shall incorporate the preservation of natural resource areas, such as oak woodland, riparian and grassland areas as a way of defining the City's boundaries and identify.

10. Consider the use of open space for the location of flood control facilities where such facilities allow compatible passive recreational use and resource preservation.

Goals: Vegetation and Wildlife

Goal 2 ***Maintain healthy and well-managed habitat areas in conjunction with one another, maximizing the potential for compatible open space, recreation, and visual experiences.***

Policies: Vegetation and Wildlife

8. Consider substitute site mitigation for federally nonregulated wetlands, provided that such mitigation will provide comparable habitat values.

Policies: Groundwater Recharge and Water Quality

5. Continue to monitor groundwater resources and investigate strategies for enhanced sustainable use. Areas where recharge potential is determined to be high shall be considered for designation as open space.

Policies: Hazardous Materials

3. Cooperate fully with both public and private agencies, as defined in the City of Roseville Hazardous Materials Emergency Response Plan in the event of a hazardous material emergency.

Goals: Fire Protection

Goal 1 ***Protect against the loss of life, property, and the environment by appropriate prevention, education, and suppression measures.***

Policies: Fire Protection

4. Provide highly trained personnel to ensure effective suppression of fires, and safety for firefighters.

5. Seek to reduce fires by fully investigating the cause, origin, and circumstances of each fire; collect and preserve evidence; coordinate with authorities in detection, apprehension, and prosecution of arsonists, pursue each investigation to its conclusion; and use resultant findings to develop more effective fire prevention programs.

7. Continue to completion the permanent fire training classroom facility at the Fire Training Center.

8. Provide a comprehensive emergency medical services program to provide Advanced Life Support services and ensure reliable ambulance transport services to aid citizens in need of rescue or medical assistance.

Policies: Parks and Recreation

12. Ensure that new public parks and greenways provide adequate funding for initial development, as well as ongoing maintenance and operation.

Goals: Water System

Goal 2 ***Provide water services to all existing and future Roseville water utility customers. The provision of services by another provider may be considered where it is determined that such service is beneficial to the City and its utility customers or the provisions of City services is not feasible.***

Goal 3 ***Ensure that safe drinking water standards are met and maintained in accordance with State Department of Health Services and EPA regulations.***

Goal 5 ***Actively pursue supplemental water supplies.***

Policies: Water System

6. Design the City's water system to maintain a minimum water pressure of ~~70~~ 50 pounds per square inch (PSI) while providing adequate water to meet fire demands in the system.
7. Provide an emergency back-up system to add sufficient reliability to the system as determined by the Environmental Utilities Department.
8. Develop and pursue alternatives to continue delivery of PCWA and SJWD water to Roseville.
11. Evaluate feasibility of developing and implementing an aquifer storage and recovery program.

Goals: Wastewater and Recycled Water Systems

Goal 3 ***Actively pursue the use of recycled water where appropriate and expand recycled water distribution system to deliver and meet estimated demands of 4,500 acre-feet/year.***

Goal 4 ***Meet State of California and EPA water quality standards for the discharge of treated wastewater, as well as meet State of California quality standards for the production of recycled water.***

Policies: Wastewater and Recycled Water Systems

1. Expand recycled water distribution system to deliver and meet estimated demands of 4,500 acre-feet/year.
2. Ensure adequate surge capacity ~~to~~ at the wastewater treatment plants.
3. Upon 75 percent utilization of treatment plant capacity, initiate expansion studies to determine necessary improvements to meet projected wastewater treatment demands.
4. Ensure that wastewater treatment capacity is available and that wastewater generation is minimized.

5. Explore potential alternatives to treatment and discharge.
6. Develop, plan, and provide incentives for use of recycled water by the public and private sectors.
7. Prevent hazardous materials from entering the wastewater system.

Goals: Solid Waste, Source Reduction and Recycling

Goal 2 ***Provide solid waste collection and disposal services to all existing and future Roseville development through the City's Solid Waste Utility. The provision of services by another provider may be considered where it is determined that such service is beneficial to the City and its customers or the provision of City services is not feasible.***

Goal 3 ***Continue to participate in local and regional approaches to source reduction, material recovery, recycling, and solid waste disposal.***

Policies: Solid Waste, Source Reduction and Recycling

2. Comply with the source reduction and recycling standards mandated by the State by reducing the projected quantity of solid waste disposed at the regional landfill by 50 percent, as well as any mandated future reductions.
4. Maintain a minimum 10-year reserve capacity at the landfill.

Policies: Electric Utility

5. Explore the feasibility of the development of and participation in environmentally renewable energy resources.
7. Pursue effective measures to enhance reliability of interconnection of the electric utility system to the region-wide grid.
8. Pursue reasonable and cost-effective energy efficiency, conservation, and load management programs pertinent to the electric utility system.
9. Continue to pursue emergency electric supplies.
10. Require new development to pay a fair share of the cost of new sub-transmission and distribution needed to serve the development and to dedicate sites and easements needed for substations, transmission, sub-transmission, and distribution.
11. Develop and implement public education programs designed to increase the public's awareness of energy issues, including conservation measures and practices.

Policies: Water and Energy Conservation

2. Implement various water conservation plans developed by the Environmental Utilities Department.
6. Develop and implement public education programs designed to increase public participation in energy and water conservation and recycled water use.

8. Enforce energy requirements and encourage development and construction standards that promote energy efficiency and conservation.

Policies: Archaeological, Historic, and Cultural Resources

3. Subject to approval by the appropriate federal, state, ~~and~~ local agencies, and Native American Most Likely Descendant (MLD), artifacts that are discovered and subsequently determined to be "removable" should be offered for dedication to the Maidu Interpretive Center.

The following amendments to the City's Zoning Ordinance are proposed as part of the project. Again, text to be deleted is indicated by strikethrough, while added text is represented by double underline.

City of Roseville Ordinance Section 1910.030 – Residential Zone General Development Standards, Subsection A:

	R1	RS	R2	R3(2)	RMU
Site Coverage	35 % for 2 story; ~~40 % for 1 story~~ 45% for 1 story	none see (4)	40%	50%	As provided in Development Standard Overlay or Special Area Overlay.

2.4.5 Remainder Area Assumptions

The EIR will evaluate the effects of amending the City's Sphere of Influence to include the Remainder Area at a programmatic level. Because no application for development of the Remainder Area has been received, the exact use, intensity, or nature of development of the Remainder Area is not certain at this time. Nonetheless, inclusion within the City's Sphere of Influence would indicate that some type and level of development similar to that proposed for the WRSP Area could occur within the Remainder Area in the future. In analyzing the effects of amending the City's Sphere of Influence, the EIR must reasonably account for the development that could occur, recognizing that no entitlements will be granted at this time, so future development could differ somewhat from the EIR assumptions.

If the Remainder Area is proposed for annexation to the City at a future date, its land use plan must conform to the City's General Plan, the Guiding Principles, and the City/County MOU document. Therefore, assumptions can be made about the level, density, and type of uses that could develop in the Remainder Area. As shown in Table 2-4, the EIR analysis assumes that the Remainder Area is developed primarily with residential and supporting commercial uses of a density and type similar to that proposed in the WRSP.

Land Uses

Residential Uses

Construction of a total of 5,296 low-density, 620 medium-density, and 1,487 high-density units is assumed on approximately 1,491.2 acres. No age-restricted units are assumed within the Remainder Area. The average residential density would be 2.28 dwelling units per acre.

Community Commercial and Business Professional Uses

Commercial and Business Professional uses are assumed at levels to support the needs of future residents, and to provide a mix of retail and service uses. A total of 67.6 acres of Community Commercial development and a total of 49.5 acres of Business Professional uses are assumed within the Remainder Area. Business Professional uses could include professional offices, financial institutions, and supporting retail type uses.

Table 2-4 West Roseville Specific Plan and Remainder Area Land Use Table

		WRSP		Remainder Area		Total	
Zoning	Land Use	Acres	Dus	Acres	DUs	Acres	DUs
LDR	Low Density Residential	1,354.6	4,842	1,324.4	5,296	2,679.0	10,138
LDR	Low Density Residential (Age Restricted)	146.9	710	0	0	146.9	710
MDR	Medium Density Residential	142.9	1,064	88.6	620	231.5	1,684
HDR	High-Density Residential	109.7	1,774	78.2	1,487	187.9	3,261
OS	Open Space	670.1		364.6		1,034.7	
OS/Paseo	Paseo	14.5		0		14.5	
PR	Park	251		195.7		446.7	
PR	Pocket Parks	19.4		0		19.4	
P/QP	Public/Quasi-Public	148.0		65.0		213.0	
CC	Community Commercial	48.5	40	67.6		116.1	40
BP	Business Professional	19.6		49.5		69.1	
LI	Light Industrial	74.2		0		74.2	
IND	Industrial	34.3		0		34.3	
R/W	Road ROW	128.3		124.7		253.0	
	Kennel	0		7.0		7.0	
Total		***3,162.0***	***8,430***	***2,365.3***	***7,403***	***5,527.3***	***15,833***

NOTE:
Totals adjusted slightly due to rounding.
SOURCE: Signature Properties; Westpark Associates, 2003

Industrial Uses

No Light Industrial or General Industrial uses are assumed within the Remainder Area.

Schools

Schools and other public facilities are assumed to be provided at levels needed to meet the demand generated by the assumed level of residential development. The Remainder Area would be located within the Center Unified School District and the Roseville Joint Union High School District. A total of 65 acres of public uses are assumed within the Remainder Area, which would provide for approximately four schools.

Parks

A total of 195.7 acres of active parks has been assumed for the Remainder Area. It is anticipated this would include a mix of neighborhood parks and other types of park facilities to support the residential uses.

Open Space

A total of 364.6 acres of open space has been assumed for the Remainder Area. It is assumed, like the WRSP, the open space areas would include the 100-year floodplain and a one-quarter mile buffer on the western edge, adjacent to the County. Open Space preserve areas would protect biological resources (e.g., wetlands, oak woodlands, creek corridors) within those areas from development.

Circulation

Roadways

Connections to existing and planned roadways have been assumed within the Remainder Area, as shown in Figure 2-16 (Conceptual Circulation Plan for SOI Amendment Area). The EIR assumes that the circulation system would be an extension of existing and planned City and County roadways, including those proposed in the WRSP, and would total approximately 124.7 acres.

Transit and Bikeways

No transit or bikeways have been assumed within the Remainder Area at this time.

Public Facilities and Services

Water

Water would be provided through the City's existing surface water supply. Recycled water would be used for non-potable uses, including landscaped irrigation within public parks and landscape medians. Refer to Section 4.11 (Utilities) for a full discussion of water demand and availability.

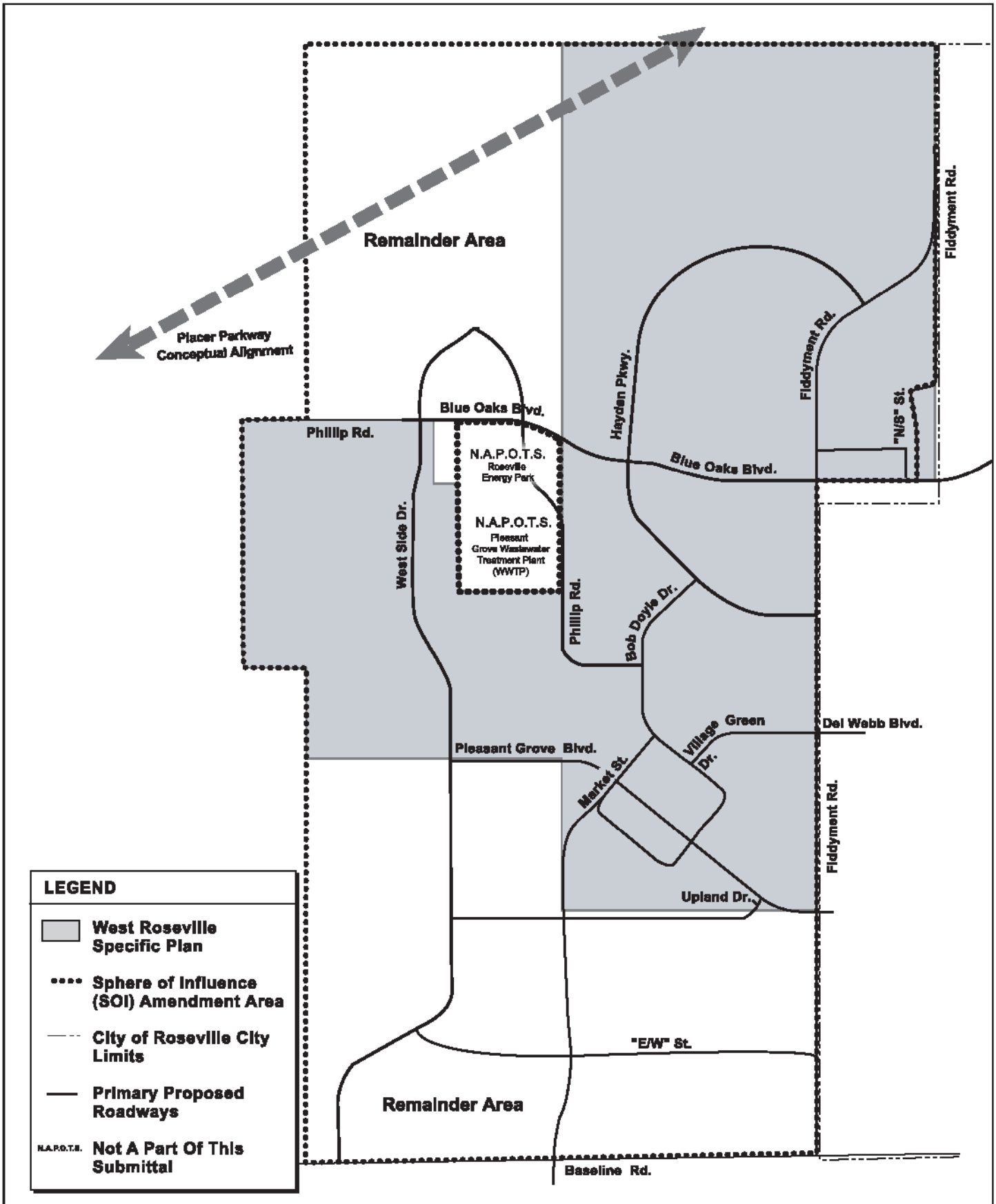


FIGURE **2-16**

Conceptual Circulation Plan for SOI Amendment Area

Not to Scale

10659-00

Source: Signature Properties and Westpark Associates, 2003; EIP Associates, 2003 City of Roseville

Wastewater

Wastewater treatment would be provided by the PGWWTP.

Recycled Water

Recycled water would be provided through construction of a series of on-site pipes that would connect to the City's recycled water infrastructure.

Storm Drainage and Flood Control

Storm drainage and flood control would be coordinated with the WRSP. The southern portion of the Remainder Area, north of Baseline Road, is within the Curry Creek watershed, while the northern portion is in the Pleasant Grove Creek watershed. It is anticipated the floodplain within the Remainder Area would remain in open space. Similar to the WRSP, on-site detention basins could be required.

Police and Fire

Police and fire services would be provided by the City of Roseville. A second fire station would be needed to service the Remainder Area. A suitable location for the second fire station site would be determined by the Fire Department if and when future development is planned in the Remainder Area.

Solid Waste

Solid waste would be disposed of at the Western Regional Sanitary Landfill, as under the WRSP.

Electrical and Natural Gas

Electricity would be provided by Roseville Electric, and natural gas services would be provided by PG&E.

Off-Site Improvements

No off-site improvements have been assumed for the Remainder Area because the Remainder Area would tie into the infrastructure provided in the WRSP. However, as discussed and evaluated in Section 4.11, Utilities, several off-site improvements are necessary to implement the project, including the Sacramento River Water Reliability Project and improvements to the City's Barton Road Water Treatment Plant, or to serve development of the WRSP. Because no specific development is proposed at this time, it is likely that other off-site improvements could be required that would be identified at the time of future specific plan processing.

Implementation

Prior to annexation of any portion of the Remainder Area, a specific plan and further environmental documentation must be prepared. Additional implementing mechanisms would likely be similar to those described for the WRSP, including development agreements, design guidelines, zoning, dedications, and assessment districts.

Schedule and Phasing

No schedule or phasing has been identified for the Remainder Area at this time, although it is anticipated that comprehensive processing of entitlements could begin after completion of the entitlement and annexation process for the WRSP.

2.5 REQUIRED PERMITS AND APPROVALS

The City of Roseville is the Lead Agency for the proposed SOI Amendment, adoption of the WRSP, annexation of the WRSP Area, and General Plan and Zoning Amendments. Following staff analysis and public review of the environmental document, the project will be forwarded to various City commissions for comment, including the Planning Commission, Transportation Commission, Public Utilities Commission, and Parks and Recreation Commission. Following review by the public and City commissions, the WRSP, WRSP Design Guidelines, WRSP Development Agreements, General Plan and Zoning Amendments, amendment of the Urban Water Master Plan, request for both the annexation of the WRSP Area and a request for a Sphere of Influence Amendment to encompass both the WRSP and the Remainder Area will be considered by the Roseville City Council.

As required by Section 15124(d)(B) of the CEQA Guidelines, the EIR must contain a list of permits and other approvals required to implement the project. As part of implementation of the WRSP, other permits and approvals would be necessary prior to construction. Both City actions and other permits and approvals are listed below and the relevant agencies in the review process are identified. In addition to these requirements, environmental review and consultation requirements related to federal, State, or other local laws or guidance applicable to individual resources are described in the Regulatory Setting subsections provided in Chapter 4 of this EIR.

2.5.1 City of Roseville

SOI Amendment Area

The following approvals would apply to the entire SOI Amendment Area:

- Certification of the Environmental Impact Report for the West Roseville Specific Plan and Sphere of Influence Amendment and adoption of the Mitigation Monitoring and Reporting Plan
- Approval of Sphere of Influence Amendment requests to the Local Agency Formation Commission (LAFCO) to amend the City of Roseville Sphere of Influence to include the entire SOI Amendment Area (5,527 acres), including an Amendment for the WRSP Area
- Approval of revised General Plan Land Use Plan to include Sphere of Influence Amendment

West Roseville Specific Plan

A specific plan has been proposed for future development of the WRSP Area to include a mixed-use planned community with residential, commercial, office, light industrial, schools, parks, and open space areas. In addition to the approvals that would apply to the entire SOI Amendment Area, this EIR will be used for the following approvals necessary for implementation of the WRSP:

- Certification of the Environmental Impact Report for the West Roseville Specific Plan and Sphere of Influence Amendment and adoption of the Mitigation Monitoring and Reporting Plan
- Approval of Sphere of Influence Amendment requests to the LAFCO to amend the City of Roseville Sphere of Influence to include the WRSP[6]
- Approval of application to LAFCO for annexation to and reorganization of the City of Roseville to include the WRSP Area (3,162 acres)
- General Plan Amendments:
  - Amendment of the City's Land Use Map and text
  - Increase in the Residential Unit Allocation from 47,500 to 55,930 units
  - Creation of the Village Center General Plan Land Use Combining designation
  - Creation of the Pedestrian District—General Plan Circulation Element
  - Various Amendments to City's General Plan text and figures to include the WRSP
  - Other minor amendments to the City's General Plan text and figures to up date and reflect current practice
  - Formatting changes to streamline the General Plan by consolidating the implementation measures into one chapter
  - Modifications to General Plan Standards needed to accommodate the WRSP:
    a. Traffic Level of Service Policy
- Adoption of the West Roseville Specific Plan, including the West Roseville Design Guidelines

[6] If the sphere amendment for the Remainder Area is not approved, the City's SOI Amendment application to LAFCO will include only the 3,162-acre WRSP.

- Pre-zoning of property to be consistent with West Roseville Specific Plan land use exhibit
- Amendments to the Roseville Zoning Code to increase
  - › Amendment to Zoning Code sections increasing one-story, single-family residential lot coverage from 40 percent to 45 percent in the R1 zone
- Approval of Large Lot Tentative Subdivision Map to divide 16 existing parcels totaling 3,162 acres into parcels ranging in size from 0.8 to 262 acres including parcels for residential, commercial, business professional, light industrial, industrial, parks, open space and public/quasi-public uses
- Approval of Development Agreements between the City of Roseville and 1600 Placer Investors, LP, and between the City of Roseville and West Roseville Development Company, Inc.
- Approval of Tree Permits
- Approval of Community Facilities District(s) and/or other financing mechanisms
- Amendment of the City's Urban Water Master Plan including adoption of revised unit water demand factors
- Amendment to City's Capital Improvement Program
- Amendment to City's Bicycle Master Plan
- Revision to Citywide unit demand factors for determination of demand for water, and allocation of 4,080 acre-feet per year of City surface water to the SOI Amendment Area
- Formal abandonment of portions of Phillip Road and Fiddyment Road
- Condemnation/acquisition of property and ROW for City and public improvements
- Compliance with SB 610 and 221; Approval of Water Supply Assessment

Remainder Area

The only approval purposed for the Remainder Area is to amend the City's SOI to include the 2,374 acres in the Remainder Area. Before any development could occur within the Remainder Area, specific plan(s), development agreements, annexation, and General Plan Amendments would be required, and appropriate project-specific environmental review would be conducted.

2.5.2 Local Agency Formation Commission (LAFCO)

The Placer County Local Agency Formation Commission (LAFCO) will consider the following actions prior to implementation of the WRSP and the SOI Amendment. LAFCO will use the EIR in evaluating the impacts of the following actions:

- Approval of Municipal Services Report that analyzes services

- Amendment of the City of Roseville Sphere of Influence to include the entire SOI Amendment Area (5,527 acres)
- Annexation to the City of Roseville of the WRSP (3,162 acres)

2.5.3 Federal

The following federal actions would be required prior to development occurring within the WRSP or Remainder Areas.

- **Section 404 Permit** (U.S. Army Corps of Engineers and Environmental Protection Agency)

  The U.S. Army Corps of Engineers (USCOE) regulates the placement of fill or dredged materials in waters of the United States, which include stream courses and jurisdictional wetlands. The USCOE regulates these activities under the authority of Section 404 of the Clean Water Act, and the Environmental Protection Agency (EPA) has authority to comment on and veto USCOE decisions. The USCOE would regulate development in the WRSP and Remainder Area that affects jurisdictional wetlands.

- **Section 7 Consultation** (Federal Endangered Species Act)

  As part of the 404 permit process, the USCOE has initiated consultation with the U.S. Fish and Wildlife Service to determine whether any federally listed species could be adversely affected and to identify measures to avoid or lessen adverse impacts on listed species.

2.5.4 State

State regulatory agencies would also need to take action on elements of the WRSP or development within the Remainder Area, as indicated below.

- **Water Quality Certification** (State Water Resources Control Board)

  Construction has the potential to directly or indirectly affect "waters and wetlands of the United States." Water or wetlands disturbance could result in a discharge to Pleasant Grove Creek or the South Branch of Pleasant Grove Creek. A water quality certification, or a waiver thereof, would be required by the State Water Resources Control Board (SWRCB).

- **Construction Storm Water Discharge Permit** (State Water Resources Control Board)

  Construction would involve clearing, grading, and excavation activities that would result in the disturbance of one acre or more of land. As such, a SWRCB General Construction permit would be required for stormwater discharge from construction sites. The permit process would include development of a Stormwater Pollution Prevention Plan (SWPPP) and identification of Best Management Practices (BMPs) to control pollutants in stormwater discharges both during construction and after construction is completed.

- **Master Reclamation Permit** (for recycled water) (State Water Resources Control Board)

  A Master Reclamation Permit would be required by the SWRCB that addresses delivering recycled water from the PGWWTP.

- **National Pollutant Discharge Elimination System** (NPDES) Permit Modification (Regional Water Quality Control Board)

  Expansion of treatment capacity of the PGWWTP beyond that planned for the Wastewater Master Plan EIR would require modification to the PGWWTP's NPDES permit to accommodate additional effluent discharges to Pleasant Grove Creek. Such modification would require approval by the Central Valley Regional Water Quality Control Board.

- **Streambed Alteration Agreements** (California Department of Fish and Game)

  Construction would require Section 1603 Streambed Alteration Agreement(s) from California Department of Fish and Game (CDFG) to evaluate the potential for impacts to aquatic habitat. CDFG has jurisdiction over construction activities affecting streambeds and banks within the 100-year floodplain. A 1603 Agreement between the Applicant and CDFG addresses methods to avoid or minimize aquatic or wetland losses in accordance with CDFG policies.

- **Hazardous Materials Environmental Oversight**

  Any environmental problems relating to hazardous materials detected on the project site may require oversight by the appropriate governmental agency (e.g., Department of Toxic Substances Control, Placer County Department of Environmental Health, City of Roseville, Regional Water Quality Control Board).

- **Permit to Operate by Placer County Air Pollution Control District**

  Commercial, office and industrial operations will require a permit to operate from the Placer County Air Pollution Control District.

This EIR analyzes development proposed within the WRSP at a project-specific level of detail and future development within the Remainder Area at a programmatic level of detail. Refer to Chapter 1, Introduction, of this EIR for a definition of project-specific and programmatic-level analyses. Accordingly, subsequent approvals within the WRSP Area may require only limited additional environmental review, and, with respect to residential or neighborhood commercial development, may require no additional environmental review. Any substantial development proposed within the Remainder Area, however, would require a more comprehensive environmental review and could require its own specific plan, in addition to other developmental approvals.

Chapter 3 SUMMARY OF ENVIRONMENTAL EFFECTS

3.1 OVERVIEW OF THE WRSP, ANNEXATION, AND SOI AMENDMENT

This EIR evaluates the environmental impacts of a Sphere of Influence (SOI) amendment for a 5,527-acre area immediately west of the City of Roseville corporate boundaries and annexation and buildout of the West Roseville Specific Plan (WRSP), which includes a 3,162-acre portion of the SOI Amendment Area. The project applicants are seeking an amendment to the City's current SOI to include the WRSP Area and to annex the WRSP to the City of Roseville. The City is requesting the SOI amendment to expand the SOI to include the entirety of the WRSP Area, as well as an additional 2,365 acres referred to here as the "Remainder Area."

The WRSP provides for approximately 8,430 residential units, including detached single-family residential, a limited number of medium-density and high-density residential, age-restricted units, four elementary schools, one middle school, one high school, two Citywide parks and numerous smaller neighborhood parks, and a mixed-use "Village Center." Proposed land uses include a total of approximately 684 acres set aside in open space; 270 acres for dedication to parks; 148 acres of public/quasi-public uses; 48.5 acres of community commercial; 19.6 acres of business professional; and 108.5 acres of industrial and light industrial uses, as indicated on Table 3-1 (West Roseville Specific Plan and Remainder Area Land Use Table). This EIR evaluates the direct, indirect, and cumulative impacts of the planning, construction, and operation of the WRSP on a project-specific level using the most current information.

The EIR also programmatically evaluates the effects of amending the City's SOI, which includes the WRSP and the Remainder Areas. Because no application for development of land within the Remainder Area has been received, the exact intensity and nature of land uses in the Remainder Area are not certain at this time. Nonetheless, inclusion within the City's SOI would indicate that some type and level of development are likely to occur. In analyzing the effects of amending the City's SOI, the EIR must account for the development that could occur, recognizing that no entitlements will be granted at this time and future development could differ somewhat from the assumptions provided in this document.

The EIR uses the land use assumptions shown in Table 3-1 to evaluate potential impacts to the Remainder Area. The provision of services is assumed to be similar to those for the WRSP, and the EIR evaluates the adequacy of existing and planned services, facilities, and utilities to serve the Remainder Area.

Table 3-1 West Roseville Specific Plan and Remainder Area Land Use Table

		WRSP		Remainder Area		Total	
Zoning	Land Use	Acres	DUs	Acres	DUs	Acres	DUs
LDR	Low-Density Residential	1,354.6	4,842	1,324.4	5,296	2,681.0	10,138
LDR	Low-Density Residential (Age Restricted)	146.9	710			146.9	710
MDR	Medium-Density Residential	142.9	1,064	88.6	620	231.5	1,684
HDR	High-Density Residential	109.7	1,774	78.2	1,487	187.9	3,261
BP	Business Professional	19.6		49.5		69.1	
CC	Community Commercial	48.5	40	67.6		116.1	40
IND	Industrial	34.3				34.3	
LI	Kennel	0		7		7	
LI	Light Industrial	74.2				74.2	
OS	Open Space	670.1		364.6		1,034.7	
OS	Paseo	14.5		0		14.5	
PR	Park and Recreation	270.4		195.7		466.1	
P/QP	Public/Quasi-Public	148		65.0		213.0	
R/W	Road Right-of-Way	128.3		124.7		253.0	
TOTAL		3,162	8,430	2,365.3	7,403	5,527.3	15,833

SOURCE: West Roseville Specific Plan, September 15, 2003

This summary provides an overview of the analysis contained in Chapter 4 (Environmental Analysis) of this document. This summary also includes discussions of *(a)* effects found to be less than significant; *(b)* potential areas of controversy; *(c)* significant impacts; *(d)* mitigation measures to avoid or reduce identified significant impacts; *(e)* unavoidable significant impacts; and *(f)* alternatives to the WRSP and its annexations and the SOI amendment.

Table 3-2, which is provided at the end of this chapter, summarizes the analysis contained in Chapter 4.

3.2 EFFECTS FOUND TO BE LESS THAN SIGNIFICANT

The City of Roseville released a Notice of Preparation (NOP) for the SOI amendment on August 16, 2002, for a 30-day public review period. A full copy of the NOP can be found in Appendix A. Comment letters received in response to the NOP can be found in Appendix B.

As shown in Table 3-2, a number of project impacts identified in the EIR were found to be less than significant, requiring no mitigation. These impacts are found in Section 4.1 (Land Use and Agricultural Resources), Section 4.2 (Population, Employment and Housing), Section 4.3 (Transportation and Circulation), Section 4.4 (Air Quality), Section 4.5 (Noise), Section 4.6 (Soils, Geology, and Seismicity), Section 4.7 (Biological Resources), Section 4.8 (Cultural), Section 4.9 (Hazardous Materials and Public Safety), Section 4.10 (Public Services), Section 4.11 (Public Utilities), Section 4.12 (Hydrology, Water Quality, and Groundwater), and Section 4.13 (Aesthetics and Visual Quality).

In the course of drafting the EIR for this project, it was determined that numerous other identified impacts could be reduced to a less-than-significant level with implementation of the proposed mitigation measures described herein.

3.3 ENVIRONMENTAL IMPACTS AND MITIGATION

Under CEQA, a significant effect on the environment is defined as a substantial or potentially substantial adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines Section 15382). Implementation of the proposed project would result in significant impacts to some of these resources, which are fully analyzed in Sections 4.1 through 4.13 of this document and summarized in Table 3-2 (provided at the end of this Chapter).

This EIR discusses mitigation measures that could be implemented by the City and/or the project Applicant to reduce potential adverse impacts to a level that is considered less than significant. Such mitigation measures are noted in this document and are found in the following sections: Section 4.1 (Land Use and Agricultural Resources), Section 4.2 (Population, Employment and Housing), Section 4.3 (Transportation and Circulation), Section 4.4 (Air Quality), Section 4.5 (Noise), Section 4.7 (Biological Resources), Section 4.8 (Cultural), Section 4.9 (Hazardous Materials and Public Safety), Section 4.10 (Public Services), Section 4.11 (Public Utilities), Section 4.12 (Hydrology, Water Quality, and Groundwater), and Section 4.13 (Aesthetics and Visual Quality). However, even with the application of feasible mitigation measures, some impacts could not be reduced to less-than-significant levels. The following are the significant and unavoidable impacts that were identified for both project-level and cumulative impacts:

SOI, WRSP, and/or Remainder Areas

- Potential incompatibility of internal land uses (WRSP and Remainder Areas)
- Conversion of prime agricultural land to developed uses (WRSP Area)

- Inducement of substantial population growth (WRSP and Remainder Areas)
- Increased traffic on City of Roseville roadways (SOI, WRSP, and Remainder Areas)
- Increased traffic on State Highways (SOI, WRSP, and Remainder Areas)
- Increased traffic on Placer County roadways (SOI, WRSP, and Remainder Areas)
- Increased traffic on City of Rocklin roadways (SOI and Remainder Areas)
- Increased traffic on Sacramento County roadways (SOI and Remainder Areas)
- Increased congestion due to proposed General Plan Pedestrian District Overlay (SOI and Remainder Areas)
- Increased emissions of fugitive dust and PM_{10} from grading and trenching activities (short term) (SOI, WRSP, and Remainder Areas)
- Increased emissions of ozone precursors during construction (short-term) (SOI, WRSP, and Remainder Areas)
- Increased emissions of air pollutants during operation (SOI, WRSP, and Remainder Areas)
- Increase in off-site traffic noise (SOI and Remainder Areas)
- Loss of oak trees of greater than 6 inches dbh (short-term) (WRSP and Remainder Areas)
- Removal of historically significant properties and/or loss of historic integrity of such resources (WRSP and Remainder Areas)
- Availability of water supplies to meet demand in wet years (Remainder Area)
- Availability of water supplies to meet demand in dry years (Remainder Area)
- Capacity of water treatment system to meet potable demand (Remainder Area)
- Increased demand for solid waste services at the landfill (WRSP and Remainder Areas)
- Increased demand for solid waste services at the MRF (WRSP and Remainder Areas)
- Construction debris demand for solid waste services (WRSP and Remainder Areas)
- Alteration of the visual character of the site and vicinity (WRSP and Remainder Areas)
- New sources of light and glare (WRSP and Remainder Areas)

Cumulative

- Agricultural land conversion (SOI and WRSP Areas)
- Increased traffic on City of Roseville roadways with Kaiser Medical Center (SOI and WRSP Areas)
- Increased traffic on City of Roseville roadways with Placer Parkway (SOI Area)
- Increased traffic on Placer County roadways with Placer Parkway (SOI Area)

- Increased traffic in Placer County under Cumulative 2020 conditions with additional development (SOI Area)
- Air quality emissions from construction (SOI and WRSP Areas)
- Air quality emissions from operation (SOI and WRSP Areas)
- On-site noise levels that exceed City standards (SOI and WRSP Areas)
- Off-site noise levels that exceed City standards (SOI and WRSP Areas)
- Loss of historic resources (SOI and WRSP Areas)
- Increased demand for water (SOI and WRSP Areas)
- Increased demand for water treatment (SOI Area)
- Increased demand for recycled water distribution system (SOI and WRSP Areas)
- Increased generation of solid waste (SOI and WRSP Areas)
- Increased stormwater runoff in the Curry Creek Watershed (SOI and WRSP Areas)
- Change in visual character (SOI and WRSP Areas)

3.4 ALTERNATIVES TO THE PROPOSED PROJECT

The EIR analyzes the following alternatives to the proposed project:

- **No Project Alternative**, which will encompass both "no development" and "no action," because no development would be permitted within the SOI Amendment Area if the current land use designations and zoning are retained
- **Open Space Alternative**, in which fewer dwelling units and/or employment-generating uses are proposed
- **Increased Intensity Alternative**, in which the number of residential units and the amount of employment-generating uses are similar to those in the WRSP, but occur at greater density on fewer acres, leaving more undeveloped open space
- **Reduced Development Alternative**, which proposes development levels at approximately 80 percent of what was proposed in the WRSP and SOI Amendment. No development would occur north of the proposed Placer Parkway.
- **Off-Site Alternative**, in which the proposed land uses are developed at another location in South Placer County

The relative effects of the alternatives are identified by impact area in Table 3-4.

3.5 POTENTIAL AREAS OF CONCERN OR UNRESOLVED ISSUES

The major areas of potential controversy identified through the environmental evaluation process include the following:

- Increased traffic on roads and highways in the City of Roseville and the County of Placer
- Loss of biological resources, including vernal pools
- Increased air pollution
- Loss of public services and degradation of the quality of services for existing residents
- Exposure of residents and students to hazards from the PGWWTP and the proposed Roseville Energy Park
- Availability of water supply
- Capacity of wastewater treatment
- Consumption of recycled water
- Consistency with Placer Legacy Open Space and Agricultural Conservation Program HCP/NCCP
- Land use compatibility with existing development east of Fiddyment Road
- Increased development in South Placer County
- Need for additional library facilities

3.6 SUMMARY TABLES

These mitigation measures are also identified in Table 3-2. Residual significance indicates the remaining level of significance after implementation of the mitigation measures. An impact that remains significant after mitigation is considered an unavoidable adverse impact of the SOI amendment. The mitigation measures presented in the EIR will form the basis of the Mitigation Monitoring Plan (MMP).

Table 3-2 (Summary of Impacts and Mitigation Measures), has been organized to correspond with the environmental issues discussed in Chapter 4. The summary table is arranged in four columns:

1. Environmental impacts ("Impact")
2. Level of significance without mitigation ("Significance")
3. Mitigation measures ("Mitigation Measure")
4. The level of significance after implementation of mitigation measures ("Residual Significance")

If an impact is determined to be significant or potentially significant, applicable mitigation measures are identified, where appropriate and feasible. Further, more than one mitigation measure may be required

to reduce the impact to a less-than-significant level. This EIR assumes that all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, City General Plan Policies and Improvement Standards, laws, and requirements or recommendations of the West Roseville Specific Plan. Applicable plans, policies, and regulations are identified and described in the Regulatory Setting of each issue area and within the relevant impact analysis. A description of the organization of the environmental analysis, as well as key foundational assumptions regarding the approach to the analysis, is provided in Chapter 4.0 (Introduction to the Environmental Analysis).

Table 3-2 Summary of Impacts and Mitigation Measures

Impact Number	Impact	Significance	Mitigation Measure	Residual Significance
4.1 Land Use and Agricultural Resources				
4.1-1 (WRSP)	Potential incompatibility of internal land uses.	S	MM 4.1-1 (Deed disclosure); MM 4.5-1 (Construction noise reduction); MM 4.5-3 (Commercial noise control); MM 4.5-5 (Industrial facilities noise controls); MM 4.5-6 (Attenuate stadium and other school noise); MM 4.5-8 (Attenuate park noise); MM 4.13-1(a)(Restrict lighting and hours); MM 4.13-1(b) (Placement of lights)	SU
4.1-1 (Remainder)	Potential incompatibility of internal land uses.	S	MM 4.1-2 (Policies to minimize agricultural impacts); MM 4.5-2 (Construction noise policies); MM 4.5-4 (Commercial noise policies); MM 4.5-7 (School noise policies); MM 4.5-9 (Park noise policies); MM 4.13-2 (Light and glare policies)	SU
4.1-2 (WRSP)	Potential incompatibility with existing agricultural and other land uses in the Remainder Area, the County, and the City of Roseville.	S	MM 4.1-1 (Deed disclosure); MM 4.1-3 (Fifty-foot setback)	LS
4.1-2 (Remainder)	Potential incompatibility with existing agricultural and other land uses in the Remainder Area, the County, and the City of Roseville.	S	MM 4.1-2 (Policies to minimize agricultural conflicts)	LS
4.1-3 (WRSP)	Potential incompatibility with the Pleasant Grove Wastewater Treatment Plant.	LS	None required	LS
4.1-3 (Remainder)	Potential incompatibility with the PGWWTP.	NI	None required	NI
4.1-4 (WRSP)	Conversion of agricultural land to developed uses.	S	MM 4.1-4 (Provide conservation easement)	SU
4.1-4 (Remainder)	Conversion of agricultural land to developed uses.	LS	None required	LS
4.1-5 (WRSP)	Interim access to City-owned property.	LS	None required	LS
4.1-5 (Remainder)	Interim access to City-owned property.	LS	None required	LS
4.1-6 (WRSP)	Potential incompatibility with City's General Plan and Zoning Code.	LS	None required	LS
4.1-6 (Remainder)	Potential incompatibility with City's General Plan and Zoning Code.	LS	None required	LS
4.2 Population, Employment, and Housing				
4.2-1 (WRSP)	Changes in jobs/housing balance.	LS	None required	LS
4.2-1 (Remainder)	Changes in jobs/housing balance.	LS	None required	LS
4.2-2 (WRSP)	Provision of affordable housing.	LS	None required	LS
4.2-2 (Remainder)	Provision of affordable housing.	S	MM 4.2-1 (Affordable housing program)	LS
4.2-3 (WRSP)	Displacement of existing housing.	LS	MM 4.2-2 (Relocation Assistance)	LS

Table 3-2 Summary of Impacts and Mitigation Measures

Impact Number	Impact	Significance	Mitigation Measure	Residual Significance
4.2-3 (Remainder)	Displacement of existing housing.	LS	MM 4.2-2 (Relocation Assistance)	LS
4.2-4 (WRSP)	Inducement of substantial population growth.	S	None available	SU
4.2-4 (Remainder)	Inducement of substantial population growth.	S	None available	SU
4.2-5 (WRSP)	Consistency with adopted City policies.	LS	None required	LS
4.2-5 (Remainder)	Consistency with adopted City policies.	LS	None required	LS
4.3 Transportation and Circulation				
4.3-1 (SOI)	Increased traffic on City of Roseville roadways.	S	None available	SU
4.3-1 (WRSP)	Increased traffic on City of Roseville roadways.	S	MM 4.3-2 (Pay fair share of identified improvements)	SU
4.3-1 (Remainder)	Increased traffic on City of Roseville roadways.	S	MM 4.3-1 (Fair share policies)	SU
4.3-2 (SOI)	Increased traffic on State highways.	S	None available	SU
4.3-2 (WRSP)	Increased traffic on State highways.	S	None available	SU
4.3-2 (Remainder)	Increased traffic on State highways.	S	None available	SU
4.3-3 (SOI)	Increased traffic on Placer County roadways.	S	None available	SU
4.3-3 (WRSP)	Increased traffic on Placer County roadways.	S	MM 4.3-3 (Construct identified improvements on Placer County roadways and limit access)	SU
4.3-3 (Remainder)	Increased traffic on Placer County roadways.	S	MM 4.3-4 (Construct identified improvements on Placer County roadways and limit access)	SU
4.3-4 (SOI)	Increased traffic on City of Rocklin roadways.	S	None available	SU
4.3-4 (WRSP)	Increased traffic on City of Rocklin roadways.	LS	None required	LS
4.3-4 (Remainder)	Increased traffic on City of Rocklin roadways.	S	MM 4.3-5 (Sunset Boulevard intersection improvements)	SU
4.3-5 (SOI)	Increased traffic on Sutter County roadways.	LS	None required	LS
4.3-5 (WRSP)	Increased traffic on Sutter County roadways.	LS	None required	LS

Table 3-2 Summary of Impacts and Mitigation Measures

Impact Number	Impact	Significance	Mitigation Measure	Residual Significance
4.3-5 (Remainder)	Increased traffic on Sutter County roadways.	LS	None required	LS
4.3-6 (SOI)	Increased traffic on Sacramento County roadways.	S	MM 4.3-6 (Widen Watt Avenue)	SU
4.3-6 (WRSP)	Increased traffic on Sacramento County roadways.	LS	None required	LS
4.3-6 (Remainder)	Increased traffic on Sacramento County roadways.	S	MM 4.3-6 (Widen Watt Avenue)	SU
4.3-7 (SOI)	Increased demand for bicycle facilities.	S	MM 4.3-7 (Provide appropriate bicycle network with future Specific Plan submittal)	LS
4.3-7 (WRSP)	Increased demand for bicycle facilities.	LS	None required	LS
4.3-7 (Remainder)	Increased demand for bicycle facilities.	S	MM 4.3-7 (Provide appropriate bicycle network with future Specific Plan submittal)	LS
4.3-8 (SOI)	Transit access and circulation.	S	MM 4.3-8 (Pay fair share of additional transit service); MM 4.3-9 (Transit service policies)	LS
4.3-8 (WRSP)	Transit access and circulation.	S	MM 4.3-8 (Pay fair share of additional transit service)	LS
4.3-8 (Remainder)	Transit access and circulation.	S	MM 4.3-9 (Transit service policies)	LS
4.3-9 (SOI)	Increased congestion due to proposed pedestrian district overlay.	S	None available	SU
4.3-9 (WRSP)	Increased congestion due to proposed pedestrian district overlay.	LS	None required	LS
4.3-9 (Remainder)	Increased congestion due to proposed pedestrian district overlay.	S	None available	SU
4.4 Air Quality				
4.4-1 (SOI)	Fugitive dust and PM_{10} from grading and trenching activities.	S	None available	STSU
4.4-1 (WRSP)	Fugitive dust and PM_{10} from grading and trenching activities.	S	MM 4.4-1 (Dust control measures)	STSU
4.4-1 (Remainder)	Fugitive dust and PM_{10} from grading and trenching activities.	S	MM 4.4-2 (Dust control policies)	STSU
4.4-2 (SOI)	Construction emissions.	S	None available	STSU
4.4-2 (WRSP)	Construction emissions.	S	MM 4.4-3 (Reduction of construction emissions)	STSU
4.4-2 (Remainder)	Construction emissions.	S	MM 4.4-4 (Reduction of construction emissions)	STSU

Table 3-2 Summary of Impacts and Mitigation Measures

Impact Number	Impact	Significance	Mitigation Measure	Residual Significance
4.4-3 (SOI)	Operational emissions.	S	None available	SU
4.4-3 (WRSP)	Operational emissions.	S	MM 4.4-5 (Reduction of operational emissions)	SU
4.4-3 (Remainder)	Operational emissions.	S	MM 4.4-6 (Operational emissions policies)	SU
4.4-4 (SOI)	Exposure of sensitive receptors to unacceptable TAC levels.	S	MM 4.4-7 (Review Uses by PCAPCD)	LS
4.4-4 (WRSP)	Exposure of sensitive receptors to unacceptable TAC levels.	S	MM 4.4-7 (Review Uses by PCAPCD)	LS
4.4-4 (Remainder)	Exposure of sensitive receptors to unacceptable TAC levels.	S	MM 4.4-7 (Review Uses by PCAPCD)	LS
4.4-5 (SOI)	Carbon monoxide emissions at local intersections.	LS	None required	LS
4.4-5 (WRSP)	Carbon monoxide emissions at local intersections.	LS	MM 4.4-5 (Reduction of Operational Emissions)	LS
4.4-5 (Remainder)	Carbon monoxide emissions at local intersections.	LS	None required	LS
4.4-6 (SOI)	Exposure to objectionable odors.	LS	None required	LS
4.4-6 (WRSP)	Exposure to objectionable odors.	LS	None required	LS
4.4-6 (Remainder)	Exposure to objectionable odors.	LS	None required	LS
4.5 Noise				
4.5-1 (SOI)	Short-term noise generated by construction activity.	N/A	N/A	N/A
4.5-1 (WRSP)	Short-term noise generated by construction activity.	LS	MM 4.5-1 (Construction Noise Reduction)	LS
4.5-1 (Remainder)	Short-term noise generated by construction activity.	LS	MM 4.5-2 (Construction Noise Policies)	LS
4.5-2 (SOI)	Commercial noise sources.	S	MM 4.5-3 (Commercial noise control); MM 4.5-4 (Commercial noise policies)	LS
4.5-2 (WRSP)	Commercial noise sources.	S	MM 4.5-3 (Commercial noise control)	LS
4.5-2 (Remainder)	Commercial noise sources.	S	MM 4.5-4 (Commercial noise policies)	LS
4.5-3 (SOI)	Industrial noise.	S	MM 4.5-5 (Industrial facilities noise controls)	LS

Table 3-2 Summary of Impacts and Mitigation Measures

Impact Number	Impact	Significance	Mitigation Measure	Residual Significance
4.5-3 (WRSP)	Industrial noise.	S	MM 4.5-5 (Industrial facilities noise controls)	LS
4.5-3 (Remainder)	Industrial noise.	NI	None required	NI
4.5-4 (SOI)	Noise from school-related activities.	LS	None required	LS
4.5-4 (WRSP)	Noise from school-related activities.	LS	None required	LS
4.5-4 (Remainder)	Noise from school-related activities.	LS	None required	LS
4.5-5 (SOI)	Citywide park noise.	S	MM 4.5-6 (Attenuate park noise); MM 4.5-7 (Park noise policies)	LS
4.5-5 (WRSP)	Citywide park noise.	S	MM 4.5-6 (Attenuate park noise)	LS
4.5-5 (Remainder)	Citywide park noise.	S	MM 4.5-7 (Park noise policies)	LS
4.5-6 (SOI)	PGWWTP noise.	LS	None required	LS
4.5-6 (WRSP)	PGWWTP noise.	LS	None required	LS
4.5-6 (Remainder)	PGWWTP noise.	LS	None required	LS
4.5-7 (SOI)	Fire station noise.	LS	None required	LS
4.5-7 (WRSP)	Fire station noise.	LS	None required	LS
4.5-7 (Remainder)	Fire station noise.	LS	None required	LS
4.5-8 (SOI)	On-site traffic noise.	S	MM 4.5-8 (On-site traffic noise attenuation requirements); MM 4.5-10 (On-site traffic noise policies)	LS
4.5-8 (WRSP)	On-site traffic noise.	S	MM 4.5-8 (On-site traffic noise attenuation)	LS
4.5-8 (Remainder)	On-site traffic noise.	S	MM 4.5-10 (On-site traffic noise policies)	LS
4.5-9 (SOI)	Off-site traffic noise levels.	S	None available	SU
4.5-9 (WRSP)	Off-site traffic noise levels.	LS	None required	LS
4.5-9 (Remainder)	Off-site traffic noise levels.	S	MM 4.5-10 (On-site traffic noise policies)	SU

Table 3-2 Summary of Impacts and Mitigation Measures

Impact Number	Impact	Significance	Mitigation Measure	Residual Significance
4.5-10 (SOI)	Changes to City noise contours.	LS	None required	LS
4.5-10 (WRSP)	Changes to City noise contours.	LS	None required	LS
4.5-10 (Remainder)	Changes to City noise contours.	S	MM 4.5-10 (on-site traffic noise policies)	LS
4.5-11 (SOI)	Groundborne vibration levels.	LS	None required	LS
4.5-11 (WRSP)	Groundborne vibration levels.	LS	None required	LS
4.5-11 (Remainder)	Groundborne vibration levels.	LS	None required	LS
4.6 Geology, Soils, and Seismicity				
4.6-1 (WRSP)	Exposure of people and structures to seismic hazards.	LS	None required	LS
4.6-1 (Remainder)	Exposure of people and structures to seismic hazards.	LS	None required	LS
4.6-2 (WRSP)	Development of structures on expansive soils or on soils with other limitations.	LS	None required	LS
4.6-2 (Remainder)	Development of structures on expansive soils or on soils with other limitations.	LS	None required	LS
4.6-3 (WRSP)	Soil erosion from grading activities.	LS	None required	LS
4.6-3 (Remainder)	Soil erosion from grading activities.	LS	None required	LS
4.6-4 (WRSP)	Slope instability and increased erosion along stream channels.	LS	None required	LS
4.6-4 (Remainder)	Slope instability and increased erosion along stream channels.	LS	None required	LS
4.6-5 (WRSP)	Loss of topsoil due to conversion of agricultural land to urban uses.	LS	None required	LS
4.6-5 (Remainder)	Loss of topsoil due to conversion of agricultural land to urban uses.	LS	None required	LS
4.7 Biological Resources				
4.7-1 (WRSP)	Loss of federally protected wetlands and "other waters" of the United States.	S	MM 4.7-1 (Ensure no net loss of wetlands)	LS
4.7-1 (Remainder)	Loss of federally protected wetlands and "other waters" of the United States.	S	MM 4.7-2 (Wetland protection policies)	LS
4.7-2 (WRSP)	Loss of federally listed vernal pool crustaceans and their habitat.	S	MM 4.7-1 (Ensure no net loss of wetlands)	LS

Table 3-2 Summary of Impacts and Mitigation Measures

Impact Number	Impact	Significance	Mitigation Measure	Residual Significance
4.7-2 (Remainder)	Loss of federally listed vernal pool crustaceans and their habitat.	S	MM 4.7-2 (Wetland protection policies); MM 4.7-3 (Vernal pool crustacean policies)	LS
4.7-3 (WRSP)	Loss of rare plant populations.	S	MM 4.7-1 (Ensure no net loss of wetlands)	LS
4.7-3 (Remainder)	Loss of rare plant populations.	S	MM 4.7-2 (Wetland protection policies)	LS
4.7-4 (WRSP)	Loss or degradation of habitat for western spadefoot, a special-status species.	S	MM 4.7-1 (Ensure no net loss of wetlands); MM 4.7-4 (Relocate individual western spadefoots)	LS
4.7-4 (Remainder)	Loss or degradation of habitat for western spadefoot, a special-status species.	S	MM 4.7-2 (Wetland protection policies); MM 4.7-5 (Spadefoot protection policies)	LS
4.7-5 (WRSP)	Disruption of Swainson's hawk, burrowing owl, and other legally protected raptors.	S	MM 4.7-6 (Avoid nesting sites)	LS
4.7-5 (Remainder)	Disruption of Swainson's hawk, burrowing owl, and other legally protected raptors.	S	MM 4.7-7 (Nest protection policies)	LS
4.7-6 (WRSP)	Loss of grassland habitat.	S	MM 4.7-8 (Off-site and on-site preservation of grassland habitat)	LS
4.7-6 (Remainder)	Loss of grassland habitat.	S	MM 4.7-9 (Swainson's hawk habitat policies)	LS
4.7-7 (WRSP)	Substantial interference with the movement of resident and migratory wildlife species.	S	MM 4.7-10 (Stream protection policies); MM 4.13-1(d) (Avoid light spill over into riparian habitat); MM 4.7-13(d) (Riparian habitat policies)	LS
4.7-7 (Remainder)	Substantial interference with the movement of resident and migratory wildlife species.	S	MM 4.7-11 (Stream protection policies); MM 4.13-1(d) (Avoid light spill over riparian habitat)); MM 4.7-13(d) (Riparian habitat policies)	LS
4.7-8 (WRSP)	Loss of oak trees of greater than 6" dbh.	STS, LTLS	None available	STSU, LTLS
4.7-8 (Remainder)	Loss of oak trees of greater than 6" dbh.	STS, LTLS	None available	STSU, LTLS
4.7-9 (WRSP)	Loss of riparian habitat.	S	MM 4.7-12 (Buffer zones or barriers),MM 4.7-13 (Buffer policies)	LS
4.7-9 (Remainder)	Loss of riparian habitat.	S	MM 4.7-12 (Buffer zones or barriers),MM 4.7-13 (Buffer policies)	LS
4.7-10 (WRSP)	Loss of biological resources due to construction of off-site infrastructure.	S	MM 4.7-1 (Ensure no net loss of wetland); MM 4.7-4 (Relocate individual western spadefoots); MM 4.7-6 (Avoid nesting sites); MM 4.7-8 (Off-site and on-site preservation of lost grassland habitat); MM 4.7-10 (Protect stream corridors); and MM 4.7-14 (Conduct appropriate surveys)	LS
4.7-10 (Remainder)	Loss of biological resources due to construction of off-site infrastructure.	S	MM 4.7-2 (Wetlands protection policies); MM 4.7-3 (Vernal pool crustacean policies); MM 4.7-5 (Spadefoot protection policies); MM 4.7-7 (Nest protection policies); MM 4.7-9 (Swainson's hawk habitat policies); MM 4.7-11 (Stream protection policies); and MM 4.7-15 (Off-site survey policies)	LS
4.7-11 (WRSP)	Changes in General Plan Policies regarding flood control facilities in open space.	LS	None required	LS

Table 3-2 Summary of Impacts and Mitigation Measures

Impact Number	Impact	Significance	Mitigation Measure	Residual Significance
4.7-11 (Remainder)	Changes in General Plan Policies regarding flood control facilities in open space.	LS	None required	LS
4.7-12 (WRSP)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.	NI	None required	NI
4.7-12 (Remainder)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.	NI	None required	NI
4.8 Cultural Resources				
4.8-1 (WRSP)	Disturb, damage, or destroy unidentified subsurface archaeological resources during project construction.	S	MM 4.8-1 (Cease work and consult with qualified archaeologist)	LS
4.8-1 (Remainder)	Disturb, damage, or destroy unidentified subsurface archaeological resources during project construction.	S	MM 4.8-2 (Include policies and conditions that require proper handling of resources); MM 4.8-3 (Conduct archaeological surveys)	LS
4.8-2 (WRSP)	Removal of historically significant properties and/or loss of historic integrity of such resources.	S	MM 4.8-4 [(a) Retain Fiddyment Ranch Main Complex in current location, or (b) Retain portions of the Fiddyment Ranch Main Complex]; MM 4.8-5 (Record historically significant resources); MM 4.8-6 (Rehabilitate and reuse historically significant properties)	SU
4.8-2 (Remainder)	Removal of historically significant properties and/or loss of historic integrity of such resources.	S	MM 4.8-7 (Include policies to survey structures over 45 years of age); MM 4.8-8 (Properly record any identified historical resources); MM 4.8-9 (Include policies that require rehabilitation and reuse of historically significant properties)	SU
4.8-3 (WRSP)	Disturb unknown paleontological resources during site preparation.	S	MM 4.8-10 (Cease work until review conducted by qualified paleontologist and recommendations implemented)	LS
4.8-3 (Remainder)	Disturb unknown paleontological resources during site preparation.	S	MM 4.8-11 (Include policies in specific plans to ensure the proper handling of paleontological resources)	LS
4.8-4 (WRSP)	Damage or destroy historic or prehistoric resources during construction of off-site infrastructure.	S	MM 4.8-1 (Cease work and consult with qualified archeologist); MM 4.8-5 (Record historically significant resources); MM 4.8-6 (Rehabilitate and reuse historically significant properties); MM 4.8-10 (Cease work until review conducted by a qualified paleontologist and recommendations implemented); MM 4.8-12 (Conduct appropriate studies)	LS
4.8-4 (Remainder)	Damage or destroy historic or prehistoric resources during construction of off-site infrastructure.	S	MM 4.8-2 (Include policies and conditions that require proper handling of resources); MM 4.8-7 (Include policies to survey structures over 45 years of age); MM 4.8-8 (Properly record any identified historic resources); MM 4.8-11 (Include policies in specific plans to ensure the proper handling of paleontological resources); MM 4.8-13 (Conduct appropriate studies)	LS
4.9 Hazardous Materials and Public Safety				
4.9-1 (WRSP)	Increased potential for accidental release or spill of hazardous materials during construction or occupancy.	LS	None required	LS
4.9-1 (Remainder)	Increased potential for accidental release or spill of hazardous materials during construction or occupancy.	LS	None required	LS
4.9-2 (WRSP)	Increased demand for hazardous materials incident emergency response.	LS	None required	LS

Table 3-2 Summary of Impacts and Mitigation Measures

Impact Number	Impact	Significance	Mitigation Measure	Residual Significance
4.9-2 (Remainder)	Increased demand for hazardous materials incident emergency response.	S	MM 4.10-3 (Construct new fire station)	LS
4.9-3 (WRSP)	Risk of exposure to accidental releases of hazardous materials from the PGWWTP.	LS	None required	LS
4.9-3 (Remainder)	Risk of exposure to accidental releases of hazardous materials from the PGWWTP.	LS	None required	LS
4.9-4 (WRSP)	Increased risk of soil or water contamination from improper disposal of household hazardous wastes.	LS	None required	LS
4.9-4 (Remainder)	Increased risk of soil or water contamination from improper disposal of household hazardous wastes.	LS	None required	LS
4.9-5 (WRSP)	Soil or groundwater contamination related to past uses.	S	MM 4.9-1 (Identify and remediate soil contamination)	LS
4.9-5 (Remainder)	Soil or groundwater contamination related to past uses.	S	MM 4.9-2 (Soil contamination policies)	LS
4.9-6 (WRSP)	Use of recycled water for landscape irrigation in areas accessible to the public.	LS	None required	LS
4.9-6 (Remainder)	Use of recycled water for landscape irrigation in areas accessible to the public.	LS	None required	LS
4.9-7 (WRSP)	Potential effects of electromagnetic fields (EMFs) from high-voltage transmission lines.	NI	None required	NI
4.9-7 (Remainder)	Potential effects of electromagnetic fields (EMFs) from high-voltage transmission lines.	LS	None required	LS
4.9-8 (WRSP)	Temporary truck route for transportation of hazardous materials through the WRSP Area.	LS	MM 4.9-3 (Temporary truck route notification)	LS
4.9-8 (Remainder)	Temporary truck route for transportation of hazardous materials through the WRSP Area.	NI	None required	NI
4.9-9 (WRSP)	Siting of a school within one-fourth mile of the handling or transportation of hazardous materials	LS	None required	LS
4.9-9 (Remainder)	Siting of a school within one-fourth mile of the handling or transportation of hazardous materials	S	None available	SU
4.10 Public Services				
4.10-1 (WRSP)	Increased demand for police protection services.	S	MM 4.10-1(a) (Increase number of police officers in the Roseville Police Department), MM 4.10-1(b) (Expand the Roseville Police Department Headquarters), MM 4.10-1(c) (Expand the voice radio communication system and data radio systems)	LS
4.10-1 (Remainder)	Increased demand for police protection services.	S	MM 4.10-2 (Law enforcement policies)	LS
4.10-2 (WRSP)	Increased demand on fire protection services.	LS	None required	LS

Table 3-2 Summary of Impacts and Mitigation Measures

Impact Number	Impact	Significance	Mitigation Measure	Residual Significance
4.10-2 (Remainder)	Increased demand on fire protection services.	S	MM 4.10-3 (Construct new stations as needed); MM 4.10-4 (Demonstrate adequate response time or provisions); MM 4.10-5 (Identify appropriate fire station locations); and MM 4.10-6 (Fire prevention and suppression policies)	LS
4.10-3 (WRSP)	Increased demand for schools.	LS	None required	LS
4.10-3 (Remainder)	Increased demand for schools.	S	MM 4.10-7 (Designate school sites)	LS
4.10-4 (WRSP)	Insufficient schools for CUSD students in proximity to the SOI Amendment Area.	NI	None required	NI
4.10-4 (Remainder)	Insufficient schools for CUSD students in proximity to the SOI Amendment Area.	S	MM 4.10-8 (School transportation policies)	LS
4.10-5 (WRSP)	Increased demand on library services.	S	MM 4.10-9 (Provide library branches, as needed)	LS
4.10-5 (Remainder)	Increased demand on library services.	S	MM 4.10-10 (Library facilities policies)	LS
4.10-6 (WRSP)	Increased demand for park facilities.	LS	None required	LS
4.10-6 (Remainder)	Increased demand for park facilities.	LS	None required	LS
		4.11 Public Utilities		
4.11-1 (WRSP)	Availability of water supplies to meet demand in wet years.	LS	None required	LS
4.11-1 (Remainder)	Availability of water supplies to meet demand in wet years.	S	MM 4.11-1 (Secure adequate water supply)	SU
4.11-2 (WRSP)	Availability of water supplies to meet demand in dry years.	S	MM 4.11-2 (Reduced groundwater extraction of agricultural land during dry years	LS
4.11-2 (Remainder)	Availability of water supplies to meet demand in dry years.	S	MM 4.11-1 (Secure adequate water supply)	SU
4.11-3 (WRSP)	Capacity of water treatment system to meet potable demand.	LS	None required	LS
4.11-3 (Remainder)	Capacity of water treatment system to meet potable demand.	S	MM 4.11-3 (Treatment plant capacity policies)	SU
4.11-4 (WRSP)	Extension of existing potable water distribution system.	LS	None required	LS
4.11-4 (Remainder)	Extension of existing potable water distribution system.	S	MM 4.11-4 (Potable water storage facility policies)	LS
4.11-5 (WRSP)	Availability of recycled water to meet demand and installation of recycled water infrastructure.	LS	None required	LS
4.11-5 (Remainder)	Availability of recycled water to meet demand and installation of recycled water infrastructure.	LS	None required	LS

Table 3-2 Summary of Impacts and Mitigation Measures

Impact Number	Impact	Significance	Mitigation Measure	Residual Significance
4.11-6 (WRSP)	Construction or expansion of wastewater collection facilities.	LS	None required	LS
4.11-6 (Remainder)	Construction or expansion of wastewater collection facilities.	LS	None required	LS
4.11-7 (WRSP)	Construction or expansion of wastewater treatment facilities.	S	MM 4.11-5 (Treatment plant capacity)	LS
4.11-7 (Remainder)	Construction or expansion of wastewater treatment facilities.	S	MM 4.11-6 (Treatment plant expansion policies)	LS
4.11-8 (WRSP)	Increased wastewater discharge regulated by the RWQCB.	LS	MM 4.11-5 (Treatment plant capacity)	LS
4.11-8 (Remainder)	Increased wastewater discharge regulated by the RWQCB.	LS	MM 4.11-6 (Treatment plant expansion policies)	LS
4.11-9 (WRSP)	Increased demand for solid waste services at the landfill.	S	MM 4.11-7 (Expand the landfill); MM 4.11-8 (Greenwaste containers)	SU
4.11-9 (Remainder)	Increased demand for solid waste services at the landfill.	S	MM 4.11-7 (Expand the landfill); MM 4.11-9 (Waste reduction policies)	SU
4.11-10 (WRSP)	Increased demand for solid waste services at the MRF.	S	MM 4.11-10 (Increase MRF Capacity)	SU
4.11-10 (Remainder)	Increased demand for solid waste services at the MRF.	S	MM 4.11-10 (Increase MRF Capacity)	SU
4.11-11 (WRSP)	Construction debris demand for solid waste services.	S	MM 4.11-7 (Expand the landfill); MM 4.11-10 (Increase MRF capacity); MM 4.11-11 (Recycle Construction Debris)	SU
4.11-11 (Remainder)	Construction debris demand for solid waste services.	S	MM 4.11-7 (Expand the landfill); MM 4.11-10 (Increase MRF capacity); MM 4.11-12 (Construction debris policies)	SU
4.11-12 (WRSP)	Increased demand for electricity.	LS	None required	LS
4.11-12 (Remainder)	Increased demand for electricity.	S	MM 4.11-13 (Electric facilities policies)	LS
4.11-13 (WRSP)	Increased demand for natural gas.	LS	None required	LS
4.11-13 (Remainder)	Increased demand for natural gas.	LS	None required	LS
4.11-14 (WRSP)	Increased demand on cable television and telephone services.	LS	None required	LS
4.11-14 (Remainder)	Increased demand on cable television and telephone services.	LS	None required	LS
4.12 Hydrology, Water Quality, and Groundwater				
4.12-1 (WRSP)	Changes in the rate of stormwater runoff (peak flows) through the development of new impervious surfaces.	LS	None required	LS

Table 3-2 Summary of Impacts and Mitigation Measures

Impact Number	Impact	Significance	Mitigation Measure	Residual Significance
4.12-1 (Remainder)	Changes in the rate of stormwater runoff (peak flows) through the development of new impervious surfaces.	S	MM 4.12-1 (Prepare site-specific drainage study)	LS
4.12-2 (WRSP)	Increase in the amount of surface runoff, which would exceed the capacity of existing storm drainage systems and increase the potential for downstream flooding.	S	MM 4.12-2 (Pay fair-share of Roseville regional stormwater retention facility improvements)	LS
4.12-2 (Remainder)	Increase in the amount of surface runoff, which would exceed the capacity of existing storm drainage systems and increase the potential for downstream flooding.	S	MM 4.12-3 (Retention policies)	LS
4.12-3 (WRSP)	Placement of fill or structures in 100-year floodplain could affect water surface elevations, which could increase the risk of flooding.	LS	None required	LS
4.12-3 (Remainder)	Placement of fill or structures in 100-year floodplain could affect water surface elevations, which could increase the risk of flooding.	S	MM 4.12-4 (Floodplain Policies)	LS
4.12-4 (WRSP)	Erosion and runoff from construction sites containing soil or other materials could degrade water quality if discharged to local streams.	LS	None required	LS
4.12-4 (Remainder)	Erosion and runoff from construction sites containing soil or other materials could degrade water quality if discharged to local streams.	LS	None required	LS
4.12-5 (WRSP)	Changes in surface water or groundwater quality resulting from urban stormwater runoff.	LS	None required	LS
4.12-5 (Remainder)	Changes in surface water or groundwater quality resulting from urban stormwater runoff.	LS	None required	LS
4.12-6 (WRSP)	Groundwater use during dry years.	S	MM 4.11-2 (non-extraction)	LS
4.12-6 (Remainder)	Groundwater use during dry years.	NI	None required	NI
4.12-7 (WRSP)	Changes in groundwater recharge potential through the development of impervious surfaces.	LS	None required	LS
4.12-7 (Remainder)	Changes in groundwater recharge potential through the development of impervious surfaces.	LS	None required	LS
4.13 Aesthetics				
4.13-1 (WRSP)	Alteration of the visual character of the site and vicinity.	S	None available	SU
4.13-1 (Remainder)	Alteration of the visual character of the site and vicinity.	S	None available	SU
4.13-2 (WRSP)	New sources of light and glare.	S	MM 4.13-1 (a) (Restrict high-watt light usage and hours for park facilities); MM 4.13-1(b) (Site high-intensity lighting so as to minimize nuisance); MM 4.13-1(c) (Use low-glare materials for new development); MM 4.13-1(d) (Avoid light spill over into riparian habitat)	SU
4.13-2 (Remainder)	New sources of light and glare.	S	MM 4.13-2 (Light and glare policies)	SU

Table 3-2 Summary of Impacts and Mitigation Measures

Impact Number	Impact	Significance	Mitigation Measure	Residual Significance
4.13-3 (WRSP)	Visual incompatibility between land uses.	LS	None required	LS
4.13-3 (Remainder)	Visual incompatibility between land uses.	LS	None required	LS
4.13-4 (WRSP)	Degradation of scenic resources.	LS	None required	LS
4.13-4 (Remainder)	Degradation of scenic resources.	LS	None required	LS

NOTES:
SU = Significant and Unavoidable
STSU = Short-Term Significant and Unavoidable
S = Significant
LTLS = Long-Term Less Than Significant
LS = Less Than Significant
NI = No Impact

Chapter 4 ENVIRONMENTAL ANALYSIS

Introduction to the Analysis

Sections 4.1 through 4.13 of Chapter 4 of this EIR contain a discussion of the potential environmental effects of implementation of the proposed project, including information related to existing site conditions, analyses of the type and magnitude of project-related environmental impacts, and feasible mitigation measures that could reduce or avoid environmental impacts. Chapter 4 includes the following sections and subjects:

4.1—Land Use and Agricultural Resources

4.2—Population, Employment, and Housing

4.3—Transportation and Circulation

4.4—Air Quality

4.5—Noise

4.6—Geology, Soils, and Seismicity

4.7—Biological Resources

4.8—Cultural Resources

4.9—Hazardous Materials and Public Safety

4.10—Public Services

4.11—Public Utilities

4.12—Hydrology, Water Quality, and Groundwater

4.13—Aesthetics and Visual Resources

Cumulative impacts are presented in Chapter 5 (CEQA Considerations) of this EIR.

Format of the Environmental Analysis

Environmental Setting

According to Section 15125 of the CEQA Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of the project to provide the "baseline condition" against which project-related impacts are compared. Normally, the baseline condition is the physical condition that exists when the Notice of Preparation (NOP) is published. The NOP for the proposed

project EIR was published in August 2002. CEQA Guidelines recognize that the date for establishing an environmental baseline cannot be rigid. Because physical environmental conditions may vary over a range of time periods, the use of environmental baselines that differ from the date of the NOP is reasonable and appropriate when doing so results in a more accurate or conservative environmental analysis.

For analytical purposes, impacts associated with implementation of the proposed project are derived from two fundamental components of the existing baseline environmental setting—existing conditions at the time the NOP was published and conditions that exist at buildout of the Roseville General Plan. It is appropriate to evaluate project-level impacts against the conditions that exist when the NOP was published for most issue areas, including Land Use and Agricultural Resources; Population, Employment, and Housing; Geology, Soils, and Seismicity; Biological Resources; Hydrology, Water Quality, and Groundwater; Hazardous Materials and Public Safety; Public Services; Cultural Resources; and Aesthetics and Visual Resources. For issue areas either directly or indirectly related to infrastructure, project-level impacts are more conservatively analyzed against future baseline conditions that consider General Plan and approved growth, because improvements (e.g., roadway widenings, intersection improvements, wastewater distribution and conveyance, solid waste disposal, water supply, electricity and natural gas supplies) must consider and accommodate ultimate demand. In this analysis, ultimate demand is the year 2020, which is the buildout year of the City of Roseville's General Plan. Accordingly, the year 2020 represents the future baseline conditions against which project impacts are measured. The issue areas dependent upon infrastructure improvements, and for which a year 2020 future baseline condition is used, include Transportation and Circulation, Public Utilities, Air Quality, and Noise. The assumptions inherent in the Air Quality and Noise analysis are derived from the Transportation and Circulation analysis; therefore, the baseline year is the same as the other issue areas related to infrastructure.

Regulatory Setting

The Regulatory Setting provides a summary of regulations, plans, policies, and laws that are relevant to each issue area.

Project Impacts

This section is further divided into the following subsections, as described below.

Methods of Analysis

This subsection identifies the methodology used to analyze potential environmental impacts.

Standards of Significance

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance" (CEQA Guidelines Section 15382). Definitions of significance vary with the physical conditions affected and the setting in which the change occurs. The CEQA Guidelines set forth physical impacts that trigger the requirement to make "mandatory findings of significance" (CEQA Guidelines, Section 15091). For all environmental issues, this EIR identifies specific standards of significance.

Where explicit quantification of significance is identified, such as a violation of an ambient air quality standard, this quantity is used to assess the level of significance of a particular impact in this EIR. For less easily quantifiable impacts, events or occurrences that would be regarded as significant or potentially significant were identified. For example, growth-inducing impacts would be identified as significant if the project results in a level, rate, or character of growth that (among other criteria) exceeds the capacity of existing infrastructure and services. Where the "substantial" effect of an impact is not identified in the CEQA Guidelines, the criteria for evaluating the significance of potential impacts were determined and identified in this document.

This subsection describes the potential environmental impacts of the proposed project and, based upon the thresholds of significance, concludes whether the environmental impacts would be considered significant, potentially significant, or less than significant. Each impact is summarized in an "impact statement," followed by a more detailed discussion of the potential impacts and the significance of each impact before mitigation.

Each impact is provided as a "summary block" prior to the impact discussion to allow for easy reference. The impact number consists of the section of the EIR in which that impact is identified followed by a "-" to indicate the number of the impact in that section. For example, Impact 4.1-1 is the first impact identified in Section 4.1. Each impact summary block is formatted as follows and includes a finding for each component of the project.

IMPACT 4.13-1:	ALTERATION OF THE VISUAL CHARACTER OF THE SITE AND VICINITY.	
Applicable Policies and Regulations:	Roseville General Plan Roseville Community Design Guidelines	
	WRSP Area	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	None Available	None Available
Significance after Mitigation:	Significant and Unavoidable	Significant and Unavoidable

Following the description of applicable policies and regulations, as well as MMs, the subsection concludes with a statement regarding whether the impact, following implementation of the mitigation measure(s) or the continuation of existing policies and regulations, would remain significant, and thus be significant and unavoidable, or would be reduced to a less-than-significant level.

The analysis of environmental impacts considers both the construction and operational phases associated with implementation of the proposed project. As required by Section 15126.2(a) of the CEQA Guidelines, direct, indirect, short-term, long-term, on-site, and/or off-site impacts are addressed, as appropriate, for the environmental issue area being analyzed. In addition, this section separately analyzes the impacts of the WRSP Area on a project-level basis and the impacts of the Remainder Area on a programmatic basis. The difference between a project-level analysis and a programmatic-level analysis is provided in Section 1, Introduction, of this document.

Information regarding the SOI Amendment Area, which consists of the WRSP Area and the Remainder Area, is provided prior to the impact discussion where it provides useful background information and/or assists the reader in establishing the context within which the WRSP Area and Remainder Area impacts occur; however, no environmental analysis is provided and no significance conclusions are identified. For most issue areas, impacts resulting from the entire SOI Amendment Area would consist of the collective impacts that would occur if the WRSP Area and Remainder Area were developed separately. In the issue areas of Transportation and Circulation, Air Quality, and Noise, an environmental analysis for the SOI Amendment Area is provided because the impacts that would result from development of the entire area would be different than the collective impacts resulting from development of the WRSP Area and Remainder Area separately. A brief discussion of why the SOI Amendment Area impacts are different than the collective impacts of the WRSP Area and Remainder Area is provided in the "Methods of Analysis" portion of Section 4.3 (Transportation and Circulation), Section 4.4 (Air Quality), and Section 4.5 (Noise).

The Draft EIR uses the following terms to describe the level of significance of impacts identified during the course of the environmental analysis:

- **Significant and Unavoidable Impact (SU)**—Impact that exceeds the defined threshold(s) of significance and cannot be eliminated or reduced to a less-than-significant level through the implementation of feasible mitigation measures
- **Significant Impact (S)**—Impact that exceeds the defined threshold(s) of significance. For purposes of this document, pre-mitigation impacts that exceed the defined threshold(s) of significance are referred to as significant; however, when the impacts cannot be eliminated or reduced to a less-than-significant level through the implementation of feasible mitigation measures, these impacts are referred to as significant and unavoidable.
- **Potentially Significant Impact (PS)**—Impact that exceeds the defined threshold(s) of significance and can be eliminated or reduced to a less-than-significant level through the implementation of feasible mitigation measures
- **Less-Than-Significant Impact (LS)**—Impact that does not exceed the defined threshold(s) of significance

A "significant effect" is defined by Section 15382 of the CEQA Guidelines as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment…[but] may be considered in determining whether the physical change is significant."

Mitigation Measures

This subsection includes feasible mitigation measures that could reduce the severity of the impact. In addition to feasible mitigation measures (MMs), the Applicant/Developer of the proposed project would also continue to comply with all applicable local, State, and federal laws and regulations, and these laws and regulations are considered to be part of the project description. In many instances, the actions that are necessary to reduce a project impact are already required by local, State, or federal law. Similarly, established design guidelines or other requirements that the City regularly recognizes and follows for development projects are also considered part of the project description, as are the standards, guidelines, and requirements imposed by the West Roseville Specific Plan. Worth noting, the Specific Plan must be consistent with the General Plan to be approved, and the Tentative Tract Map and Final Map must be consistent with the Zoning Code in order to be approved. In this EIR, such requirements are identified and considered in the impact assessment prior to the identification of additional project-specific mitigation measures that would reduce the level of significance of impacts.

Modifications to the Proposed Project since Issuance of the NOP

Since the NOP was released on August 16, 2002, revisions to the WRSP land use plan have been made in response to NOP comments, as well as issues raised by regulatory agencies, the City of Roseville and other service providers. Some revisions to the land use plan were made by the Project Applicant to improve compatibility among land uses and to improve the overall circulation, public infrastructure, and/or phasing approach to the project.

Tables 4-1, 4-2, and 4-3 summarize the changes to proposed land use acreages and distribution of residential units between the time the NOP Land Use Plan (August 16, 2002) was prepared and the land use plan was revised (August 29, 2003). The revised land use plan is shown in Figure 2-3 (West Roseville Specific Plan Land Use Plan), which is provided in Chapter 2 (Project Description). The prior land use plan is shown in Figure 2 of the NOP, which is provided in Appendix A. No land use changes have been made to the Remainder Area.

Table 4-1 APN Acreage Amounts

APN	Acreage
Westpark Associates	
017-100-021	160
017-100-043	321
017-100-044	130
017-150-003	238
017-150-037	634
Subtotal	**1,483**
Signature Properties	
017-100-009	480
017-100-010	160
017-100-034	364
017-100-035	120
017-100-036	80
017-100-040	80
017-115-001	159
017-115-063	79
017-115-062	79
017-115-061	78
017-115-051	0.2
Subtotal	**1,679**

SOURCE: Placer County Assessor's Office http://www.placer.ca.gov/assessor/assessor.htm

Table 4-2 Differences in Land Uses Between NOP and Draft EIR (WRSP Only)

Zoning	Land Use	WRSP (NOP) August 16, 2002 Acres	WRSP (NOP) August 16, 2002 DUs	WRSP September 15, 2003 Acres	WRSP September 15, 2003 Dus	Change from NOP Acres	Change from NOP DUs
OS	Open Space	649.7		670.1		20.4	
OS/Paseo	Open Space Paseo	0		14.5		14.5	
PR	Park	246		251.0		5.0	
PR	Pocket Parks	0		19.4		19.4	
P/QP	Public/Quasi-Public	141.5		148		6.5	
LDR	Low Density Residential	1,393.9	4,915	1,354.6	4,842	-39.3	-73
LDR	Low Density Residential (Age Restricted)	149.6	745	146.9	710	-2.7	-35
MDR	Medium Density Residential	112.4	810	142.9	1,064	30.5	254
HDR	High-Density Residential	114.8	1,960	109.7	1,814	-5.1	-146
CC	Community Commercial	88.1		48.5		-39.6	
BP	Business Professional	4.7		19.6		14.9	
LI	Light Industrial	53.6		74.2		20.6	
IND	Industrial	59.4		34.3		-25.1	
R/W	Road right-of-way	147.9		128.3		-19.6	
	Total	***3,162.0***	***8,430***	***3,162.0***	***8,430***	**0**	**0**

NOTE: Totals adjusted slightly due to rounding.
SOURCES: Signature Properties; Westpark Associates, 2003; EIP Associates, 2003
West Roseville Specific Plan, September 15, 2003

Table 4-3 Summary of Residential Land Use Changes

	NOP – August 2002 Land Use Plan		September 2003 Land Use Plan	
	Total Units	Percentage of Total	Total Units	Percentage of Total
Single Family Residential (0.5 to 6.9 units per acre)	5,660	67%	5,552	66%
Medium Density Residential (7.0 to 12.9 units per acre)	810	10%	1,064	13%
High-Density Residential (13.0 unit per acre and greater)	1,960	23%	1,814	21%
Total Units	***8,430***	***100%***	***8,430***	***100%***

NOTE: Due to rounding effects, percentage totals may be greater than 100%.
SOURCE: Signature Properties; Westpark Associates, 2003

The following summarizes the substantive revisions to the land use plan since the release of the NOP:

- *Creation of West Side Open Space.* On the west side of the WRSP Area, the land use pattern has been modified to add a buffer between the WRSP and the open land to the west. The amount of land devoted to urban uses decreased, reducing developable acreage, adding open space, and modifying the circulation pattern to create an edge to the WRSP land use plan. This change is intended to provide a larger contiguous open space area to protect vernal pool habitat and to provide a permanent open space buffer between the development proposed by the WRSP and open land to the west.

- *Creation of 267-acre open space area*. On the NOP land use plan, approximately 151 acres of open space were shown west of Westpark Drive.[7] On the revised land use plan, the open space area has been increased to 267 acres and the developed area has been decreased by 116 acres. This open space area ranges from 1,200 to 3,500 feet in width.
- *Relocation of Residential Units*. West of the proposed West Side Drive, where additional open space was added, approximately 300 residential units were relocated to the Village Center, distributed among Low Density Residential (LDR) and Medium Density Residential (MDR) parcels surrounding the Village Center. The number of proposed residential units remains at 8,430.
- *Street Renamed within the WRSP Area*. Westpark Drive (on the NOP land use plan) is now shown as West Side Drive. The alignment of West Side Drive has straightened somewhat and the northern intersection with Blue Oaks Boulevard is located farther east. In addition, Dyer Road is now shown as Market Street within the WRSP Area. Outside of the WRSP Area, it remains as Dyer Road. Veterans Boulevard is now Village Green Drive, and two small streets within the Village Center are now referred to as Street A Northwest and Street B Southeast.
- *Blue Oaks Terminus at West Side Drive*. On the NOP land use plan, Blue Oaks Boulevard is extended to the northwest corner of the WRSP Area to intersect with Watt Avenue. Blue Oaks Boulevard now terminates at its intersection with West Side Drive.
- *Pleasant Grove Boulevard Arterial Terminus at West Side Drive*. On the NOP land use plan, Pleasant Grove Boulevard is extended west along the southern edge of the WRSP Area to intersect with the proposed extension of a north/south arterial. Pleasant Grove Boulevard now is planned as a four-lane arterial to its intersection with West Side Drive. On the west side of West Side Drive, Pleasant Grove Boulevard would function as a residential collector for adjacent residential land uses to the north.
- *North/South Arterial Alignment Modified*. On the NOP land use plan, Watt Avenue, a six-lane arterial, was located on the west side of the SOI Amendment Area. In the revised land use plan, the proposal for north/south arterial alignment has been modified. West Side Drive now provides north/south circulation to the west side of the WRSP Area. As shown in Figure 2-16 (Conceptual Circulation Plan for the SOI Amendment Area) in Chapter 2 (Project Description), a north/south arterial could be extended through the Remainder Area at an angle, connecting with West Side Drive. It would not preclude a northerly extension to Watt Avenue.
- *Addition of Paseos*. Throughout the WRSP Area, paseos have been added that were not included in the NOP. The paseos are landscaped corridors that link developed areas (i.e., schools, residential neighborhoods) to parks and other open space features. The paseos are linear (approximately 75 feet in width) and are located throughout the WRSP Area. Paseos provide a non-vehicular passage for pedestrians and bicyclists to access open space and park areas.

[7] Westpark Drive is now shown as West Side Drive.

- *Elimination of "200-foot" Open Space Corridors*. The north side of the plan (Signature Property) originally contained 200-foot-wide open-space corridors that ran east/west and north/south. These corridors have been eliminated and the acreage has been added to other natural open space areas to provide larger open space preserve areas.
- *Refinements to the Village Center*. The basic form and concept of the Village Center has been refined since release of the NOP. This includes modification of the land use plan for the Village Center to incorporate a broad mix of uses applied over an urban grid street pattern with a central village green. The refined land use plan includes a blend of higher density residential types, commercial and service uses and public/quasi-public spaces. The resulting increase in the density/intensity of development and refined spatial relationship between uses promotes activity, pedestrian orientation, and use of alternative transportation modes. The WRSP Area includes planning principles influenced by smart growth concepts to guide implementation of the Village Center.
- *Elimination of the 10-acre Commercial Center at Pleasant Grove and Fiddyment Road*. In order to focus commercial development within the Village Center, the nearby ten-acre commercial center was removed.
- *Elementary School Moved Out of Village Center*. The elementary school site (W-75) previously located in the Village Center is still in proximity to the Village Center, although it has been moved north of Del Webb Boulevard (now Village Green Drive) on the Westpark property to give it separation from the proposed commercial uses.
- *Market Street Extended on West Side of Village Center*. Market Street has been extended south to the edge of the WRSP Area along the west side of the Village Center. Market Street will access the Village Center and provide the WRSP Area with additional north/south circulation. Eventually, Market Street may extend south through the Remainder Area, to Baseline Road (see Figure 2-16 in Chapter 2).
- *Shift in Emphasis to Medium-Density Residential Range*. Revisions to the WRSP land use plan have resulted in a slight shift in residential densities from the Low-Density (LDR) and High-Density Residential (HDR) categories to Medium-Density Residential (MDR). The shift in densities is a result of units moving from the west side of the WRSP Area to the Village Center area and an overall increase in average density of the medium-density range from 7.2 to 7.7 units per acre.
- *Shift from Industrial to Light Industrial Land Uses*. On the NOP land use plan, 53.6 and 59.4 acres were designated for Light Industrial and Industrial land uses, respectively. The land use designation for approximately 25 acres was changed from Industrial to Light Industrial. This revision was made when West Side Drive was realigned to the east.
- *Business Professional Site Relocated*. On the NOP land use plan, a business professional site was located on Westpark Drive across from light industrial land uses. The business professional site was moved south to the northeast corner of Pleasant Grove Boulevard and West Side Drive to this location to increase accessibility (adjacent to two arterials) and to allow use of the power line easement for parking.

- *Fire Station Relocated from Westpark Drive to Hayden Parkway Site.* The fire station previously located west of Westpark Drive and north of an industrial collector street was relocated to the east side of the WRSP Area to a more central location. The 3.1-acre fire station site is located south of Blue Oaks Boulevard on the west side of Hayden Parkway. The new site is more centrally located, which will result in better response times to more land uses. The fire station site would be constructed in Phase 1 of the project.
- *Electric Substation Located on Blue Oaks Boulevard.* A 1.6-acre site for an electric substation is now proposed north of Blue Oaks Boulevard west of a Community Commercial site at the northwest corner of Fiddyment Road/Blue Oaks Boulevard. The substation is identified as a Phase 1 improvement.
- *Community Commercial Site Relocated.* In the NOP, a 10-acre Community Commercial site was located in the southeast corner of the WRSP Area at the intersection of Fiddyment Road and Pleasant Grove Boulevard. Since preparation of the NOP the commercial site has been removed.
- *Addition of Phillip Road to Circulation Plan.* Abandonment of portions of Phillip Road through the WRSP Area adjacent to the Pleasant Grove Wastewater Treatment Plant (PGWWTP) was contemplated. Since preparation of the NOP, Phillip Road has been added to the plan as a future collector road extending from Bob Doyle Drive west and then north to an intersection with Blue Oaks Boulevard. Portions of Phillip Road between the PGWWTP and proposed Roseville Energy Park will be abandoned. The north/south alignment of Phillip Road will separate the PGWWTP from the regional park/sports complex and provide additional access to the regional park/sports complex. Phillip Road will function as a collector with a landscape corridor on the west side and regional park on its east side.
- *Water Storage Tanks Relocated to South of the PGWWTP.* In the NOP, the water storage tanks were located north of the PGWWTP, east of the proposed energy facility site. The water tanks have been relocated to just south of the PGWWTP on a 5.1-acre site.
- *Well Sites Added.* The revised land use plan includes four well sites: one is in the northeast portion of the WRSP Area north of Pleasant Grove Creek; the second is located southwest of the PGWWTP along the east side of West Side Drive; the third is located in the northwest portion of the WRSP Area west of West Side Drive; and the fourth is located along Hayden Parkway in southwest of Fiddyment Park.
- *Removal of the Multi-Modal Transit Center.* In the NOP, a small site was designated for a multi-modal transit center located in the northwest corner of the WRSP Area. In the revised land use plan this multi-modal transit center has been removed.

4.1 LAND USE AND AGRICULTURAL RESOURCES

4.1.1 Introduction

This section addresses existing and planned land uses for the SOI Amendment Area and vicinity, including a description of the existing land uses within the SOI Amendment Area and in adjacent areas; an analysis of projected and potential changes in the type, intensity, or pattern of land uses, including agricultural lands; and compatibility between existing and planned uses within the SOI Amendment Area and in adjacent areas. Although not considered a CEQA issue, it should be noted that one of the proposed alignments of Blue Oaks Boulevard (refer to Chapter 2, Project Description, for more detail) could result in the need to acquire parcels just east of the West Side Drive/Blue Oaks Boulevard intersection. This issue is discussed in detail later in this section (refer to Impact 4.1-2). Potential conflicts with provisions of the City of Roseville General Plan, Placer County General Plan, Placer County Local Agency Formation Commission (LAFCO) Guidelines, and other relevant planning documents are discussed in Chapter 7 (Planning Considerations). Information provided in this section was gathered from site visits and a review of the following documents:

- *City of Roseville General Plan* (1992), and as amended January 2003
- *California Department of Conservation Placer County Important Farmland Map*
- *City of Roseville Zoning Ordinance*
- *Placer County General Plan*
- *West Roseville Specific Plan* (2003)
- *Reason Farms Regional Detention EIR,* January 2003

All of these documents are available for review at the City of Roseville Permit Center, 311 Vernon Street, Roseville, California.

Physical impacts resulting from the change in land uses (e.g., biological resources, transportation, public services) are addressed in Sections 4.2 through 4.13 of this EIR.

Comment letters received in response to the Notice of Preparation (refer to Appendix B) raised concerns associated with the proximity of residential areas to active agricultural uses, compatibility due to an increase in traffic noise and emissions on adjacent areas (specifically, Del Webb Specific Plan), and loss of privacy. These issues are addressed in the Impacts analysis of this section.

As discussed in Chapter 1 of this EIR, Introduction, this EIR evaluates the impacts of the West Roseville Specific Plan (WRSP), which would include a Sphere of Influence Amendment and annexation to the City, at a project-specific level. Because a Sphere Amendment is the only action proposed for the Remainder Area, a program-level analysis is provided for the Remainder Area SOI Amendment (refer to Chapter 1 of this EIR for a more complete description of project-specific versus program level analysis). In order to conduct the analysis, development assumptions are made for the Remainder Area (refer to Chapter 2 for details). Figure 1-1 (SOI Amendment Area) in Chapter 1, Introduction, identifies the boundaries of the WRSP Area and Remainder Area, which collectively comprise the entire SOI Amendment Area.

As discussed in the introduction to Chapter 4 of this EIR, Environmental Analysis, minor changes have been made to the proposed land uses for the WRSP since publication of the NOP. Overall, the total number of residential units has not changed. However, the number of low-density and high-density units has decreased, while the total number of medium-density units has increased. In addition, the total amount of open space increased by 34.9 acres, primarily along the western boundary of the WRSP Area, and the total amount of Community Commercial has decreased by 41 acres. Lastly, the total amount of land designated for Industrial has decreased, while Light Industrial has increased. Because the mix of uses and proximity of residential uses to commercial, industrial, and agricultural uses have not changed, the land use analysis is not substantially affected by alterations since the NOP.

4.1.2 Environmental Setting

Land Uses in the Vicinity of the SOI Amendment Area

Placer County

Adjacent and nearby unincorporated areas in Placer County to the north, south, and west of the SOI Amendment Area include undeveloped dry pasture land and rural residential uses with topography similar to the SOI Amendment Area. Lands north and west of the site are designated for agricultural use in the Placer County General Plan. Land in the western and northern sections of this rural area of the County has primarily been used for grazing or other dry farming activity. These lands are designated primarily as Farmland of Local Importance or Grazing Land.[8]

The area extending west of Fiddyment Road between Baseline Road and Pleasant Grove Creek to the Sutter County line (including a portion of the WRSP Area and Remainder Area) has been identified by

[8] Placer County Farmland Map, 1992

the Placer County General Plan as a "Study Area" that "may be identified as being suitable for development at urban or suburban densities and intensities…" Future growth in this area may occur in the unincorporated County, or as a result of annexation to an adjacent city.[9] The Placer County Study Area is illustrated by Figure 4.1-1 (Placer County Study Area) in the context of the proposed project site.

Placer County has adopted the Sunset Industrial Area Plan (SIAP), which addresses land use to the north of the project site. The SIAP, adopted by the County in 1997, provides land use designations and policies to guide development within approximately 9,000 acres and designates land adjacent to the SOI Amendment Area as Industrial Reserve, which would permit agriculture, recreational and entertainment activities compatible with industrial uses, as well as activities from the Western Regional Sanitary Landfill as permitted in the Farm Zone District.[10]

A cogeneration facility and the Western Regional Sanitary Landfill are located to the north of the SOI Amendment Area. The landfill is located approximately one mile northeast.

Placer Vineyards, a proposed mixed-use specific plan area, would be located in unincorporated Placer County southwest of the SOI Amendment Area. The proposed Placer Vineyards project encompasses approximately 5,000 acres and could eventually include 14,132 residential units and 6.7 million square feet of nonresidential development. The County is currently preparing an EIR on the Placer Vineyards project.

Additional development proposals considered for projects within the unincorporated area of southwestern Placer County include the proposed Placer Ranch, De La Salle University and Planned Community, Bickford Ranch, Northwest Rocklin Annexation, and Roseville Energy Park. Development areas in Placer County are illustrated by Figure 4.1-2 (Development Areas in the County) and further discussed in the cumulative impacts section of Chapter 5 (CEQA Considerations).

The proposed Placer Ranch project in Western Placer County is a mixed-use development project that was recently proposed for the western portion of the Sunset Industrial Area in unincorporated Placer County north of the City of Roseville. The preliminary Placer Ranch plans call for a 262-acre college campus plus 3,095 residential dwelling units and about 1,046 acres of retail, office, and industrial uses. At this time no formal application has been submitted to the County; however, an informal proposal has been submitted to the County, with a formal application anticipated in late 2003.[11]

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[9] Placer County, Placer County General Plan, August 1994, p. 146

[10] Sunset Industrial Area Plan, Placer County, Figure 1-1 and pp. 1-4 through 1-5, 1997

[11] Fred Yeager, Placer County Planning Director, personal communication, April 23, 2003

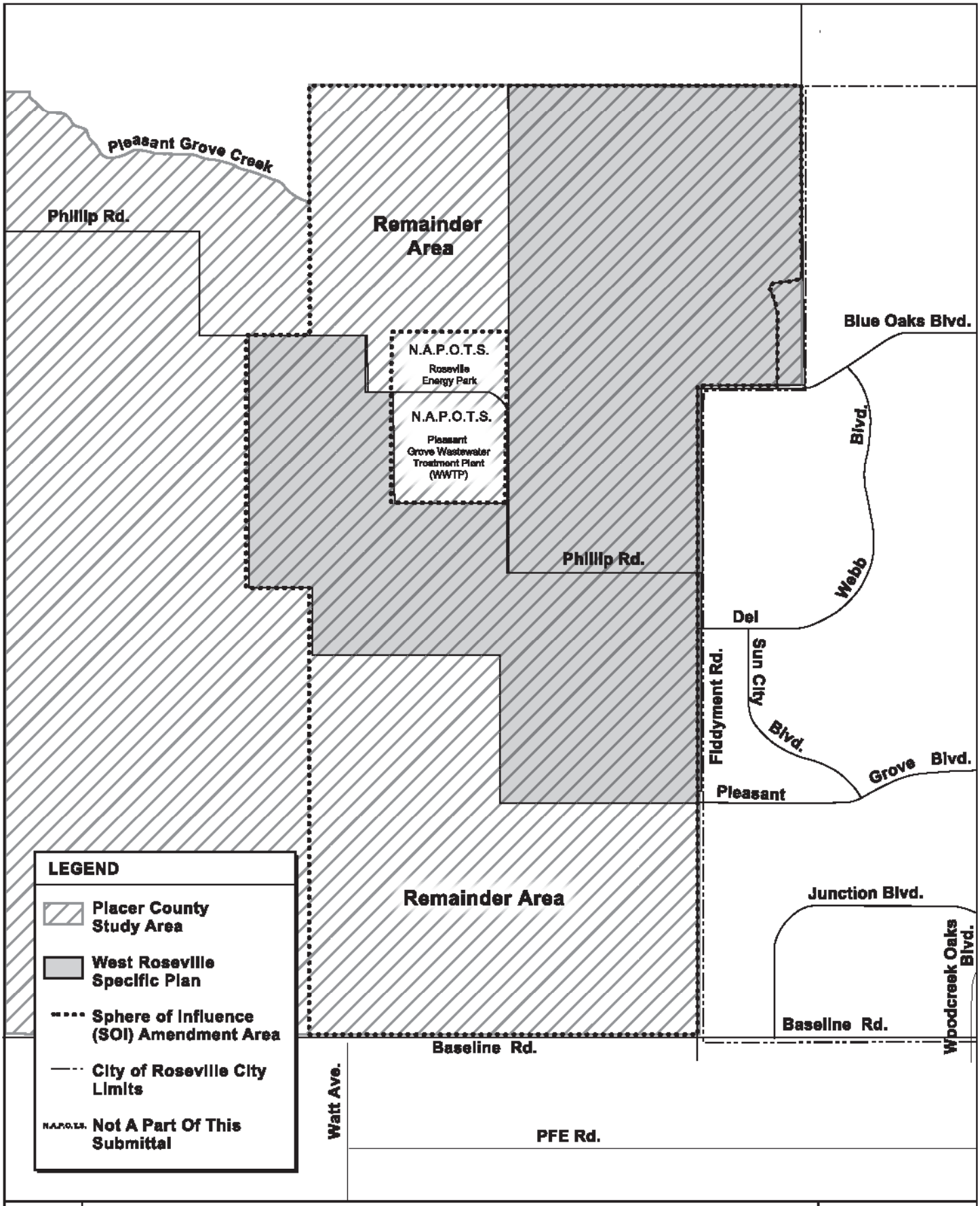


FIGURE **4.1-1**

Placer County Study Area

Not to Scale

10659-00

Source: Placer County, 2003

City of Roseville

EIP ASSOCIATES

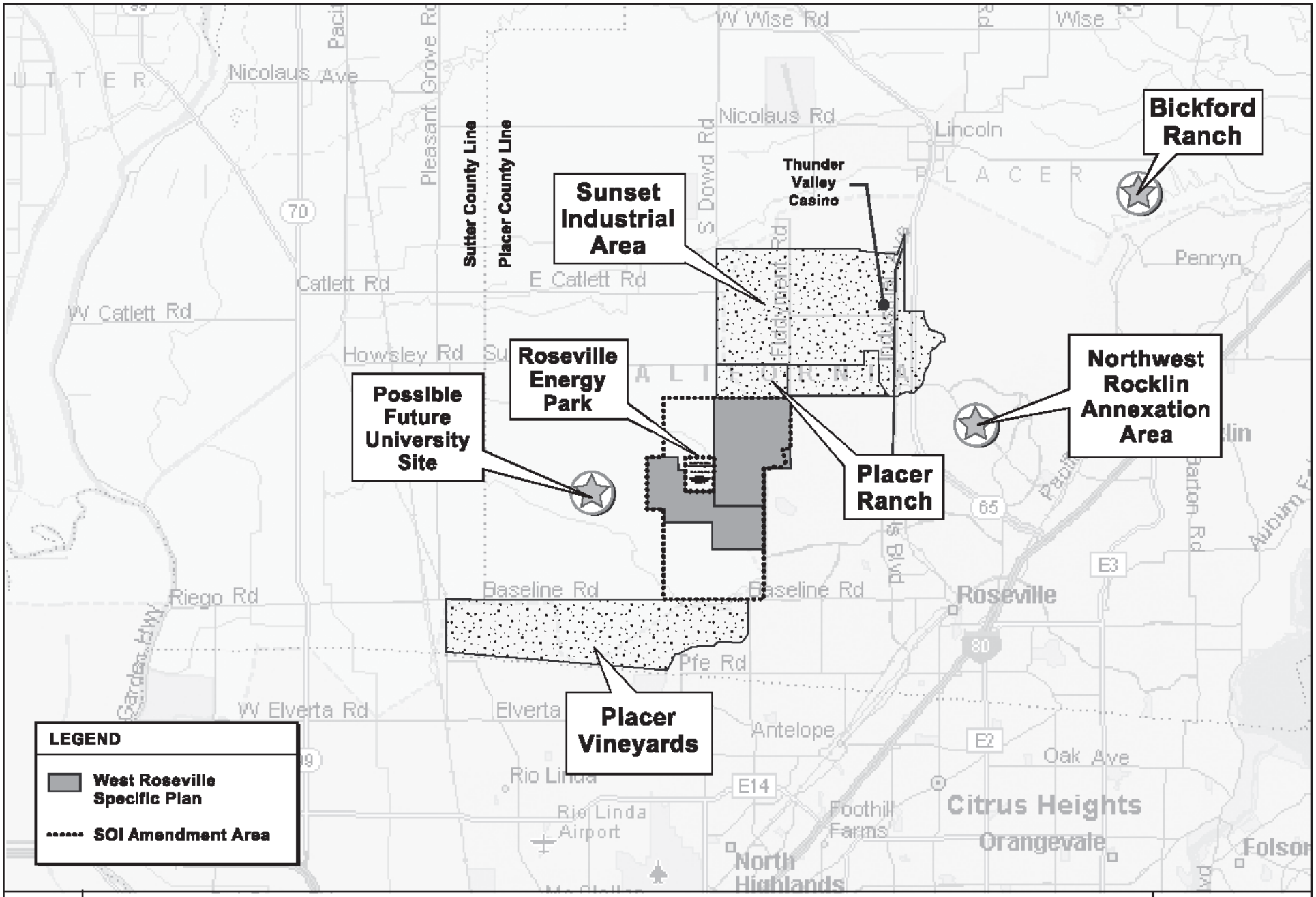


FIGURE **4.1-2**
Development Areas in the County

Not to Scale

10659-00

Source: Microsoft Street & Trips 2002, EIP Associates, 2003

City of Roseville

EIP ASSOCIATES

The De La Salle University project is proposed for an approximately 1,100-acre site immediately west of the WRSP site, in unincorporated Placer County. The initial project application for the De La Salle University and community indicates that the campus will consist of 600 acres, and the adjoining 500 acres will comprise the planned community portion. The project will include 365 acres of low, medium, and high-density residential, 73 acres of commercial, and 62 acres of parks, schools, and open space.

The Bickford Ranch project, approved by the County is located four miles west of I-80 and along the southern portion of Highway 193. It is proposed as a large scale, mixed use planned development. The project proposes 1,880 residential units, an 18-hole golf course, 9.7 acres of retail/office uses, and several public service buildings.

The Northwest Rocklin Annexation, or Sunset Ranch Development, is a proposed 1,871-acre multi-use project that would involve the addition of 3,009 houses, 1,150 apartments, and approximately 500,000 square feet of retail and office space on 12 acres to an area east of Highway 65.

The proposed Roseville Energy Park involves the construction of a 150 MW electrical generation facility north of the PGWWTP site.

The United Auburn Indian Community's 200,000-square-foot casino (Thunder Valley Casino), located in an area of Placer County designated for industrial use at Athens and Industrial Avenue, approximately two miles north of the SOI Amendment Area, opened in June 2003.

City of Roseville

The SOI Amendment Area is located within unincorporated Placer County adjacent to the western boundary of the City of Roseville. Historically, the Roseville region has been dominated by agricultural activities, most notably ranching. Large ranches, such as the Kaseberg Ranch, and the Spring Valley Ranch, have had active operations since the mid 1800s. Grazing continues throughout the region on a limited basis, primarily in areas outside of the City (no agricultural uses have occurred within the City in recent years). Other agricultural activities in the region have included production of poultry, wheat, raisins, grapes, oranges, and nuts. Over the years, agricultural production and economic viability of agricultural operations in the area have changed dramatically due to poor soils, cost of utilities (i.e., water costs), and costs associated with labor and equipment.

The City of Roseville has experienced sizeable growth during the past two decades. The City has evolved into an urban center with a mix of residential, service, and employment uses. Land designated and zoned for residential development within the existing City of Roseville boundaries is fully entitled for future

development and, according to development projections prepared by Muni Financial, is anticipated to be built out between 2005 and 2007 (copies of this information are available during normal business hours at the City's Permit Center, 311 Vernon Street, Roseville, California). Potential development west of the City of Roseville has been contemplated for some time.

In the early 1990s, the City received an application to develop an area located that is with northeast portion of the WRSP Area. The project, called the Villages at Blue Oaks, Phase 1, assumed development of 1,079 acres with 3,568 residential units, 27 acres of retail/commercial uses, and 90 acres of parks and recreation. The project was evaluated in the Comprehensive Land Use Element Update Project (CLUE) EIR (February 1995). Neither the CLUE EIR nor the Village at Blue Oaks was advanced for approvals by the City.

Since the 1980s the City has adopted eight specific plans, shown on Figure 4.1-3 (Specific Plan Areas in the Vicinity of the Project Site). These plans address growth issues and the unique constraints and opportunities found within each area, and provide a context within which implementation of the land use plan and associated public facilities can be successfully accomplished. The three specific plan areas that are either adjacent to or near the project site are the Del Webb Specific Plan (DWSP), North Roseville Specific Plan (NRSP), and the Northwest Roseville Specific Plan (NWRSP) described below.

Del Webb Specific Plan

The DWSP, adopted in December 1993 and almost completely built out, is an age-restricted community encompassing 1,200 acres on the northwest side of the City, situated south of Blue Oaks Boulevard and east of Fiddyment Road, abutting the WRSP Area. The DWSP consists of primarily single-family homes focused around recreational facilities and a golf course and provides for 3,179 dwelling units and 27.3 acres of commercial property.[12]

North Roseville Specific Plan

The NRSP (Phases 2 and 3) is located along the northern and western boundaries of the City of Roseville, adjacent to the WRSP Area and is scheduled to be built out by 2007. The NRSP was adopted by the City in 1997. The entire NRSP includes 1,361 acres, a portion of which is located adjacent to Fiddyment Road in the western portion of the City. At buildout, the NRSP is projected to have a total of 5,381 dwelling units along with a mix of commercial uses.[13] Within the NRSP, 3,061 of the units have been built; 668 units are under construction.

[12] City of Roseville Quarterly Development Activity Report, Second Quarter 2002, p. 17
[13] City of Roseville Quarterly Development Activity Report, Second Quarter 2002, p. 22

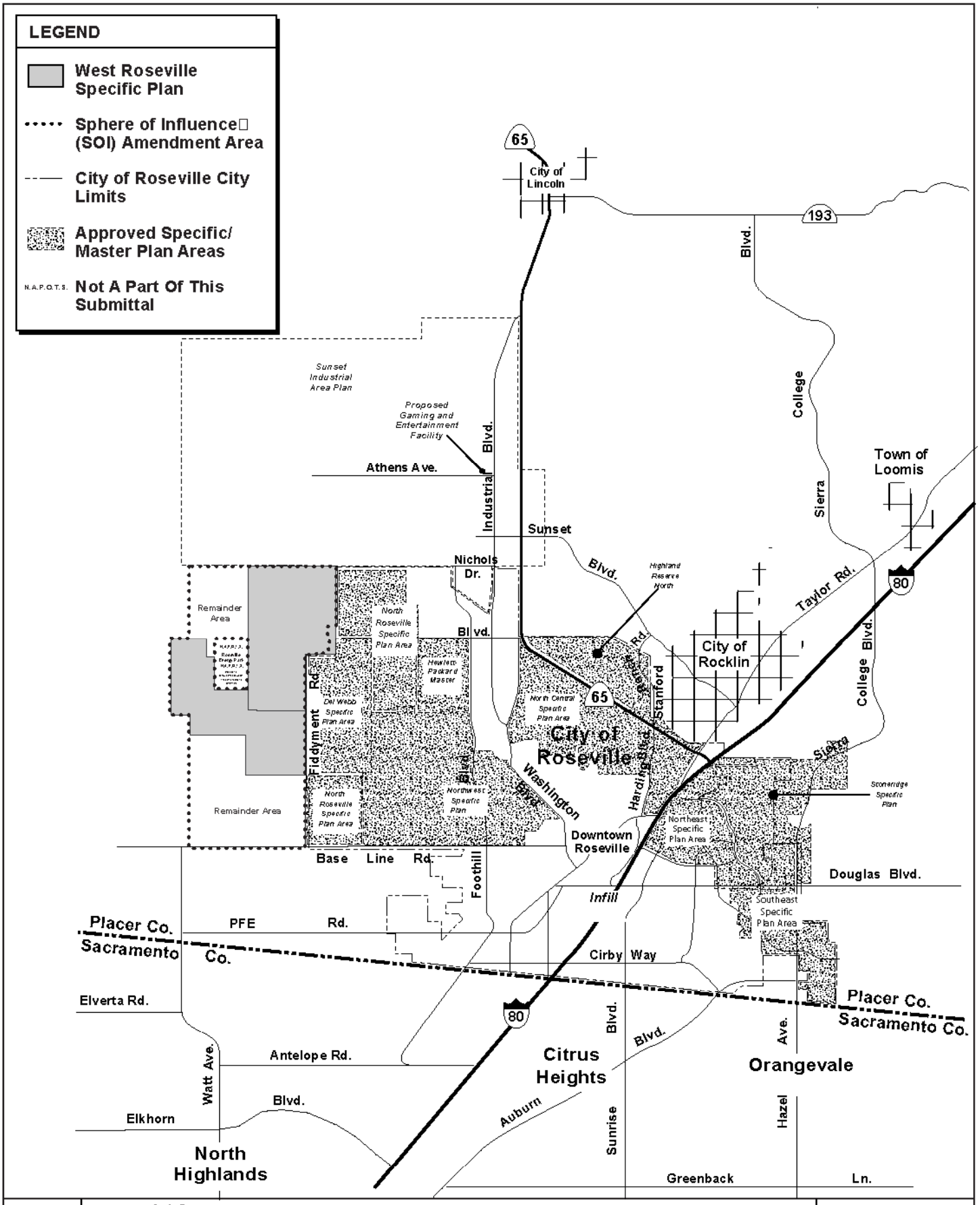


FIGURE **4.1-3**

Specific Plan Areas in the Vicinity of the Project Site

Not to Scale

10659-00

Source: City of Roseville, 2003; EIP Associates, 2003

City of Roseville

Northwest Roseville Specific Plan

The NWRSP was adopted by the City in May 1989. This specific plan includes 2,754 gross acres and is located approximately one mile east of the SOI Amendment Area. Single- and multi-family residences are the dominant land use, with associated commercial, office, and service uses. The NWRSP also incorporates a significant amount of parkland and open space, the City's Woodcreek Golf Club, and several school sites, including the Woodcreek Oaks High School. The NWRSP is close to buildout and is expected to include 9,082 dwelling units.

City-Owned Facilities

As shown in Figure 2-2 (Land Ownership) in Chapter 2 (Project Description) of this document, the City owns approximately 180 acres adjacent to the WRSP Area. City-owned land includes the Pleasant Grove Wastewater Treatment Plant (PGWWTP) (approximately 110 acres), which is currently under construction, as well as approximately 70 acres north of the PGWWTP and south of Blue Oaks Boulevard to buffer the plant from adjacent uses. Approximately 40 of the 70-acre area are a part of an area the City is analyzing as part of the proposed Roseville Energy Park, a 150 MW energy facility, as shown on Figure 4.1-4 (Adjacent Parcels). As discussed in Chapter 1 of this EIR, the 180 acres owned by the City are not located within the SOI Amendment Area, but are included in the City/County MOU Transition Area. Refer to Chapter 1 for more detail. The City property is surrounded by the WRSP Area to the south, east, and west with the Remainder Area to the north. There are also high-voltage electric transmission lines that traverse the Remainder Area (60 and 230 kV transmission lines), which are discussed in more detail in Section 4.9 (Hazardous Materials and Public Safety) and Section 4.11 (Public Utilities).

Land Uses within the SOI Amendment Area

WRSP

The majority of the WRSP Area is undeveloped and contains nonnative, annual grasslands. The topography of the site is relatively flat with areas of rolling terrain. Pleasant Grove Creek and Kaseberg Creek traverse a portion of the WRSP Area. Several residences are present in the WRSP Area including the Fiddyment Ranch complex and the Corin residence located off Fiddyment Road in the Fiddyment Ranch portion of the WRSP Area (refer to Figure 4.1-4 and Section 4.13 [Aesthetics and Visual Resources] for more detail on these residences). The current predominant land use is seasonal livestock grazing. In the past, portions of the site have been used for grazing, limited dry farming, and poultry operations. A portion of an active pistachio orchard is located in the Fiddyment Ranch property, west of Fiddyment Road.

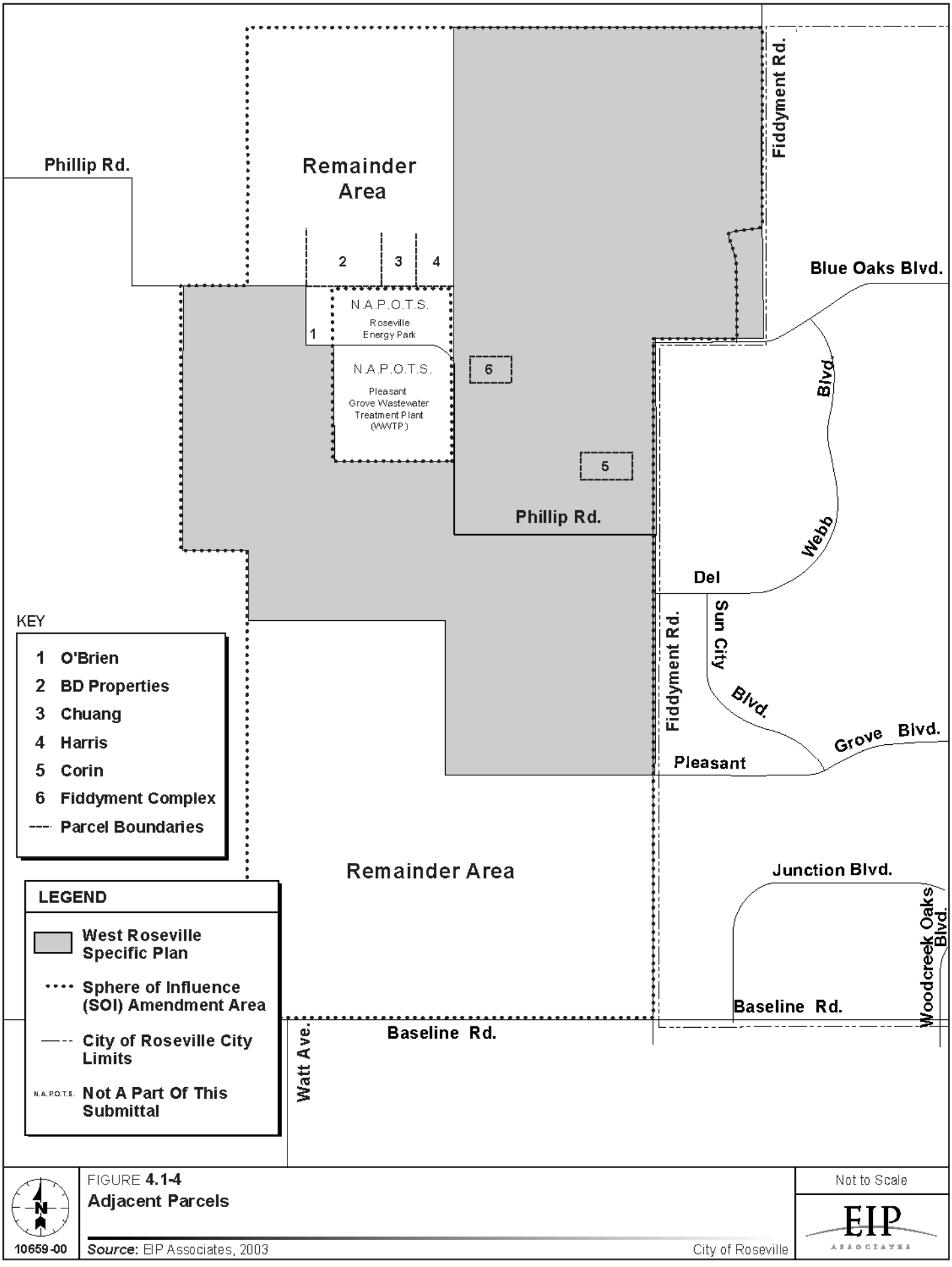


FIGURE **4.1-4**
Adjacent Parcels

Not to Scale

10659-00

Source: EIP Associates, 2003

City of Roseville

EIP ASSOCIATES

The WRSP Area is located in an unincorporated area of Placer County. The Placer County General Plan currently designates the site for Agriculture/Timberland, 80-acre minimum. The WRSP Area is designated in the Placer County Zoning Ordinance as Farm Combining Building Site, 80-acre (FB-X-80). The following uses are permitted in the FB-X-80 zone, either by right or with the issuance of a conditional use permit:

- Single-family dwelling; keeping of poultry, rabbits or similar livestock; farming, dairies, animal husbandry; crop and tree farming; apiaries; aviaries; stands exclusively for the sale of products produced on the premises; stables and riding academies; communications equipment building, distribution substation; small livestock farming; greenhouse; residential care homes for six or less persons; large and small family day care homes.
- Buildings or structures, including housing for agricultural workers, garages and implement shelters, customarily associated with an accessory use to the uses listed above; storage of petroleum products for use of the premises, but not for resale; home occupation; commercial breeding, feeding and managing, and sale on the premises of fish; guest houses; commercial vehicle storage (one vehicle, 2.3 acre minimum).
- Duplexes; tract offices; golf courses; public or quasi-public uses including fire houses, schools accredited to the State school system; excavation and quarrying; animal hospital; veterinarian; museum; country club; hospital; convalescent hospital and skilled nursing facilities sanitarium; public parks; playground; community center; grange halls; public dumps; rest homes; public utility service yards; residential care homes for more than six persons; child nurseries for more than fourteen persons; bed and breakfast; second residential units; performing arts studio; mobile home to house agricultural workers.
- Airports; industrial plants which process agricultural products; frog farms; commercial hog and turkey raising; fertilizer plants; kennels; cattle feed yards; animal sales yard; public utility transmission substation; farm equipment sales and service; labor supply camps; sales of agricultural products.
- Commercial explosives storage and manufacture.
- Churches.
- Commercial vehicle storage: 2.3 acres or less.

The California Department of Conservation (CDC) classifies the WRSP Area as Farmland of Local Importance and a small portion of the area encompassing a portion of the existing pistachio orchard as Prime Farmland. A description of the farmland classifications is included under the Regulatory Setting section.

Existing Land Uses on the Westpark Property

The Westpark property currently has no structures on site (refer to Figure 4.1-4). The land is covered with grasslands and scattered seasonal wetlands, with one mature oak tree present. Phillip Road separates the Westpark property's northern border (and portions of the eastern border) from the Fiddyment Ranch property to the north and west. The road continues north until it turns west again north of the PGWWTP.

Existing Land Uses on the Fiddyment Ranch Property

The Fiddyment Ranch property contains gently rolling terrain in the northern portion of the site. A number of structures are present on site, including three existing homes, a number of outbuildings associated with the agricultural uses, the original Fiddyment homestead, an abandoned poultry farm, a pistachio sales storefront, a small abandoned airstrip, a cell tower, and a pump station (refer to Section 4.13, Aesthetics and Visual Resources, for more detail on the location of these residences). One of the existing homes, the Corin residence, is located west of Fiddyment Road, south of the proposed extension of Blue Oaks Boulevard. This residence was built in 1949 and is a four bedroom, two-and-a-half bathroom, single-family residence that will remain in the WRSP Area in an area designated for low density residential (refer to Figure 4.1-4 and Figure 2-3 [West Roseville Specific Plan Land Use Plan]). Pleasant Grove Creek and Kaseberg Creek traverse the Fiddyment Ranch property. Native oaks and other riparian vegetation are present along the creeks. In addition, a mature grove of native oak trees is located in the southern portion of the property adjacent to Fiddyment Road. As mentioned above, a portion of the southern and western boundaries of the Fiddyment Ranch property is bordered by Phillip Road.

History of Farming and Agricultural Uses on Property

Site history research dating back to the late 1800s indicates that the Westpark property was a portion of a larger, undeveloped grassland and dry-farmed area of southwestern Placer County. The land has been used for cattle grazing with no agricultural operation over the last ten to fifteen years.[14]

On the Fiddyment Ranch property, the Fiddyment family has experimented with a number of agricultural operations over the last 150 years. Most predominantly, the Fiddyments raised sheep, cattle, chickens, and turkeys and grew rice. Historical records indicate that the property was occupied as early as 1855, when government surveyors recorded farming activity there including fences and a field. When soil and natural irrigation provide poor for farming, the Fiddyment family turned to raising horses and mules, which proved unprofitable.[15]

At the turn of the century, land north of Pleasant Grove Creek was used for rangeland.[16] Grazing periods were limited due to the unproductive grasslands and consequently, herds were moved to mountain pastures early in the season. During the 1950s and 1960s there was an effort to grow rice irrigated a ditch

[14] Cultural Resources Investigation of the Westpark/Fiddyment Ranch and Live Oak Enterprises/Signature Property Development Project, Placer County, California, PAR Environmental Services, Inc. (May 2001), pp. 7-8

[15] Cultural Resources Investigation of the Westpark/Fiddyment Ranch and Live Oak Enterprises/Signature Property Development Project, Placer County, California, PAR Environmental Services, Inc. (May 2001), pp. 7-8

[16] David Fiddyment, personal communication, September 2003

and well. After this proved unsuccessful, that area was used as irrigated pasture until it was eventually allowed to return to a natural state.[17]

The most successful agricultural operation on the ranch was poultry and turkey farming. Chickens were raised on the property from 1941 to 1955 and turkeys from the early 1930s to approximately 1992. Turkey farming was the longest running operation and most successful on the site in part because it was not dependent on soil and grazing quality. In the late 1980s and early 1990s, the Fiddyment family shifted operations to breeding turkeys for other turkey producers as statewide turkey production diminished state-wide when major turkey processing operations moved out of state.[18]

Before his father purchased the property in 1941 until approximately 1960, David Fiddyment utilized a portion of the Fiddyment property as a vineyard. Yields were low and the vineyard was diseased.[19]

A pistachio orchard was planted in two plantings in 1969 and the second in the early 1970s. The pistachio trees were somewhat stunted in growth compared to similar-aged trees located in higher quality soils and yields were below average. Other than the pistachio orchard and some small produce gardening, the property is used today for cattle grazing.[20]

Remainder Area

The physical characteristics of the Remainder Area are similar to the WRSP Area, consisting of undeveloped areas of nonnative, annual grasslands. As shown on Figure 2-2 (Land Ownership) in Chapter 2 (Project Description) of this EIR, the 2,365-acre Remainder Area includes an area to the north of the Westpark property and to the west of the Fiddyment Ranch property, and a larger area to the south of the Westpark property. The topography of the Remainder Area is relatively flat with areas of rolling terrain. Pleasant Grove Creek traverses the northern portion of the Remainder Area.

The current predominant land use is seasonal livestock grazing. There are three existing residences within the northern portion of the Remainder Area: the O'Brien residence, the Harris residence, and the Chang residence. The O'Brien property includes a dog kennel business and is located west of Phillip Road south of Blue Oaks Boulevard immediately west of the City-owned land (refer to Figure 4.1-4).

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[17] Cultural Resources Investigation of the Westpark/Fiddyment Ranch and Live Oak Enterprises/Signature Property Development Project, Placer County, California, PAR Environmental Services, Inc. (May 2001), pp. 7-8

[18] David Fiddyment, personal communication, September 2003

[19] David Fiddyment, personal communication, September 2003

[20] David Fiddyment, personal communication, September 2003

Land Ownership within the SOI Amendment Area

The WRSP Area consists of properties under the ownership and/or control of two development entities. A portion of the WRSP Area is owned by 1600 Placer Investors, Inc. and managed by Westpark Associates (1,483-acre Westpark property) and Signature Properties controls the 1,679-acre Fiddyment Ranch property, which is held under multiple ownerships. The total WRSP Area includes 3,162 acres (refer to Table 4.1-1).

Table 4.1-1 WRSP Ownerships / Acreages

APN	Acreage	APN	Acreage
Westpark Associates		Signature Properties	
017–100–021	160	017–100–009	480
017–100–043	321	017–100–010	160
017–100–044	130	017–100–034	364
017–150–003	238	017–100–035	120
017–150–037	634	017–100–036	80
Subtotal	1,483	**017–100–040**	**80**
		017–115–001	159
		017–115–063	79
		017–115–062	79
		017–115–061	78
		017–115–051	0.2
		Subtotal	**1,679.2**

NOTE:
Acreages vary from land use total slightly due to unsurveyed information from assessor's office.
SOURCE: Placer County Assessor's Office http://www.placer.ca.gov/assessor/assessor.htm

The remaining 2,365 acres within the Remainder Area are owned by numerous different landowners, shown in Table 4.1-2. The WRSP Area is under two ownerships with the following assessor's parcel numbers (APN):

Table 4.1-2 Remainder Area Ownerships/Acreage

APN	Acreage	Owner
Remainder Area (North)		
017–100–004 (portion)	80	Reason Farms
017–100–007	40	Amoruso, Peter
017–100–032	40	Harris, William
017–100–033	40	Chuang, Chau Hsiung
017–100–037	20	Wagne, Malcome E. / Doris
017–100–038	80	BD Properties
017–100–039	100	CHI Partnership
017–100–041	80	Friedman, Kenneth J.
017–100–042	158	n/a
Subtotal	**638**	
Remainder Area (South)		
017–150–002	n/a	Richland
017–150–008 (portion)	315	Baseline P/R LLC
017–150–012	120	Federico Tyler Family Limited Partnership
017–150–019	224	Richland
017–150–020	64	Federico Tyler Family Limited Partnership
017–150–024	32	Federico Tyler Family Limited Partnership
017–150–025	48	Richland
017–150–026	80	Fanelli Dominica
017–150–027	79	n/a
017–150–029	79	Wealth Properties
017–150–030	122	Bagley / Associates
017–150–031	81	Computer Deductions, Inc
017–150–032	19	Conley, Earl C.
017–150–033	13	Federico Tyler Family Limited Partnership
017–150–035	275	Federico Tyler Family Limited Partnership
017–150–036 (portion)	50	Coley, Earl C.
017–150–039	71	n/a
Subtotal	**1,672**	

SOURCE: Placer County Assessor's Office 2003

Agricultural Status

The California Department of Conservation (CDC) Farmland Mapping and Monitoring Program classifies the SOI Amendment Area as Farmland of Local Importance and Prime Farmland. The location of these classifications within the project site are illustrated by Figure 4.1-5 (Farmland Classification). The soil type classifications are described below.

Prime Farmland

Prime Farmland generally consists of Class I and II soils, farmland with the best combination of physical and chemical features able to sustain long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods.

Farmland of Local Importance

Land of importance to the local agricultural economy, as determined by each County's board of supervisors and a local advisory committee, is classified as Farmland of Local Importance.

Most of the soils in the SOI Amendment Area are Class III and IV, which severely limit agricultural production. The Ramona soils (soil units 174 and 175) and Xerofluvents (193) are Class I and II,[21] but these soils are limited in extent and are generally in the vicinity of proposed open space areas along Pleasant Grove Creek and Kaseberg Creek. Refer to additional discussion on soils in Section 4.6 (Geology, Soils, and Seismicity).

None of the SOI Amendment Area is restricted to agricultural uses under the Williamson Act, which provides for a preferential assessment of agricultural and open space lands that meet local size and use criteria.

Storie Index

The NRCS has also rated suitability of soils in Placer County for agriculture using the Storie Index. This index, which consists of six grades ranging from excellent (1) to unsuitable (6), expresses numerically the relative degree of suitability of a soil for general intensive agriculture as it exists at the time of evaluation. The rating is based on soil characteristics only and is obtained by evaluating such factors as soil depth, surface texture, subsoil characteristics, drainage, salts and alkali, and relief. Most of the SOI Amendment

[21] USDA Natural Resources Conservation Service, *Soil Survey Placer County, California, Western Part*, 1980, pp. 11 through 74

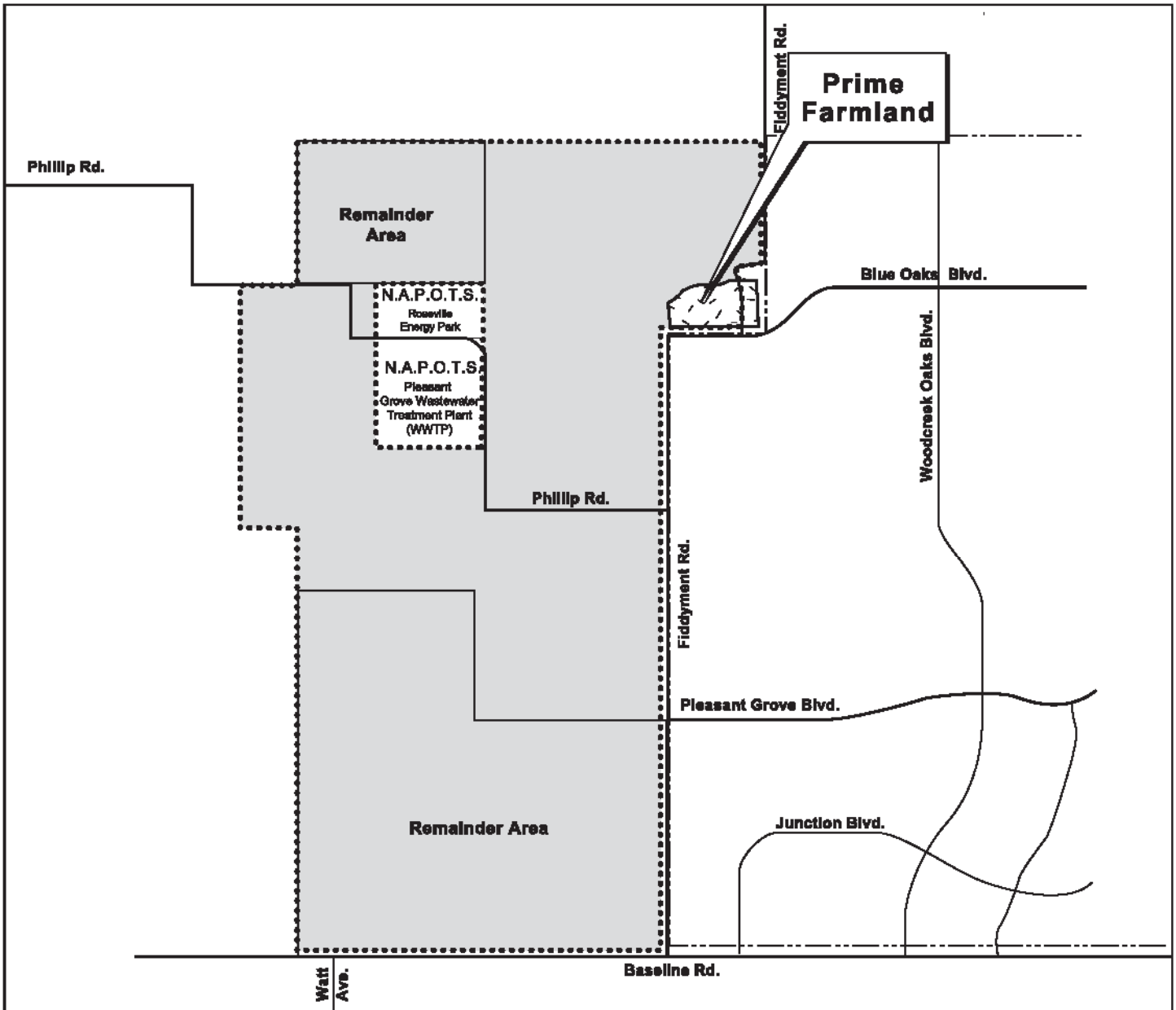


FIGURE **4.1-5**

Farmland Classification

Not to Scale

10659-00

Source: EIP Associates, 2003

City of Roseville

Area consists of Storie Index 4 and 5 soils, which are poorly suited for agriculture. There are no Grade 1 soils in the SOI Amendment Area.[22]

4.1.3 Regulatory Setting

State

The California Department of Conservation (CDC) Farmland Mapping and Monitoring Program classifies the site as listed below:

- Farmland of Local Importance

  This classification applies to a majority of the project site. As defined by Placer County,[23] these are farmlands not covered by the Prime, Statewide, or Unique categories, and include lands zoned for agriculture by County Ordinance and the California Land Conservation Act, dry farmed lands, irrigated pasture lands, other agricultural lands of significant economic importance to the County, and lands that have a potential for irrigation from Placer County water supplies.

- Prime Farmland

  The California Department of Conservation (CDC) classifies 40.2 acres of the WRSP Area encompassing a portion of the existing pistachio orchard as Prime Farmland.

Local

City of Roseville

The City of Roseville General Plan includes goals and policies for growth management. Refer to Appendix C for a complete list of all applicable City goals and policies. Consistency with the City's General Plan, Guiding Principles, applicable Placer County General Plan goals and policies, as well as the MOUs with Placer County and the USFWS, are addressed in Chapter 7 of this EIR, Planning Considerations. It should be noted that the City, through a separate process, is reviewing its level of service standards for a variety of public services. This may result in changes to service levels within the existing City and would also establish new service levels within the Project area. The WRSP will be required to meet or exceed the City's standards, but will not be held to a higher standard than the rest of the City should service standards be lowered in the future.

[22] USDA Natural Resources Conservation Service, *Soil Survey Placer County, California, Western Part*, 1980, pp. 11 through 76

[23] Placer County Important Farmland Map 1990, California Department of Conservation, March 1992

Implementation of the City of Roseville Zoning Ordinance, which specifies building setbacks, building heights, building density and site coverage would ensure the public's health, welfare and safety would be protected and that development occurs in planned, logical fashion.

Implementation of the City's Community Design Guidelines, which specify site layout and design, architectural treatments and specific exterior building materials, and lighting guidelines, would help to reduce land use incompatibilities. In addition, the WRSP Design Guidelines include specific requirements for fencing, landscaping, and building setbacks.

The WRSP Design Guidelines require soundwalls and landscape setbacks in a number of locations. These features, detailed below, would reduce noise levels in residential areas adjacent to roadways. However, acoustical studies would be needed once more detailed design information is available in order to determine whether additional noise attenuation measures would be required to meet City standards.

The WRSP Design Guidelines state 6-foot masonry walls or wood fencing would be provided at the following locations:

- Between the kennel on Blue Oaks Boulevard and the industrial uses to the west and south
- Adjacent to low-density and medium density residential uses along Fiddyment Road, Blue Oaks Boulevard, Pleasant Grove Boulevard, Phillip Road, and West Side Drive
- Where residential lots back up to schools or parks
- Around the PGWWTP and expansion site and water storage tanks
- Along Hayden Parkway

The WRSP Design Guidelines also call for 35-foot landscape setbacks along major roadways.

Placer County

The SOI Amendment Area is currently within Placer County and subject to the Placer County General Plan. As stated in Chapter 2, the proposed SOI Amendment includes amending the City's Sphere of Influence boundaries to include the entire SOI Amendment Area and annexation of the WRSP to the City of Roseville. It is anticipated that in the future, when and if the City receives applications to develop projects within the Remainder Area, this area would also be annexed to the City. If annexed, these areas would be subject to the City General Plan, not the County General Plan. Nonetheless, for the reader's information, this EIR does consider aspects of the WRSP and the SOI Amendment that could be considered in conflict with the County General Plan, or that would have less severe impacts on the environment if subject to County rather than City General Plan policies (i.e., where County policies are more protective of a resource than City policies). Therefore, a complete list of all the County's General

Plan policies is included in Appendix D. If a potential conflict or more restrictive County policy is identified, it is discussed in Chapter 7 (Planning Considerations).

The Placer County General Plan includes policies that address agricultural issues that the City does not have. All of the County's policies are included in Appendix D of this EIR. However, the two polices that specifically relate to development adjacent to agricultural land are shown below:

- 1.H.5 The County shall require development within or adjacent to designated agricultural areas to incorporate design, construction, and maintenance techniques that protect agriculture and minimize conflicts with adjacent agricultural uses.
- 1.H.6 The County shall require new nonagricultural development immediately adjacent to agricultural lands to be designed to provide a buffer in the form of a setback or sufficient distance to avoid land use conflicts between the agricultural uses and the nonagricultural uses. Such setback or buffer areas shall be established by recorded easement or other instrument, subject to the approval of County Counsel. A method and mechanism (e.g., a homeowners association, or easement dedication to a nonprofit organization or public entity) for guaranteeing the maintenance of this land in a safe and orderly manner shall also be established at the time of development approval.

4.1.4 Impacts and Mitigation Measures

Methods of Analysis

This section addresses land use impacts based on existing conditions. For a discussion of cumulative impacts on Land Use and Agricultural Resources, refer to Chapter 5 (CEQA Considerations).

Land Use Compatibility

Existing and planned land uses for the WRSP Area and the Remainder Area have been identified based on a site visit by EIP Associates staff, information provided by the City of Roseville Planning Department, the project applicants, and their consultant team. The land use evaluation is based on a qualitative comparison of existing and proposed uses on the site and their compatibility with existing and planned land uses as defined in the City's General Plan and/or relevant Specific Plans, as well as other applicable local and/or regional environmental and planning documents.

West Roseville Specific Plan

Uses that would be allowed within each land use category in the WRSP Area are compared to adjacent existing and proposed uses to determine their compatibility. Proposed land uses are illustrated by Figure 4.1-6 (West Roseville Specific Plan Land Use Plan). Table 4.1-3 provides a breakdown of the land uses

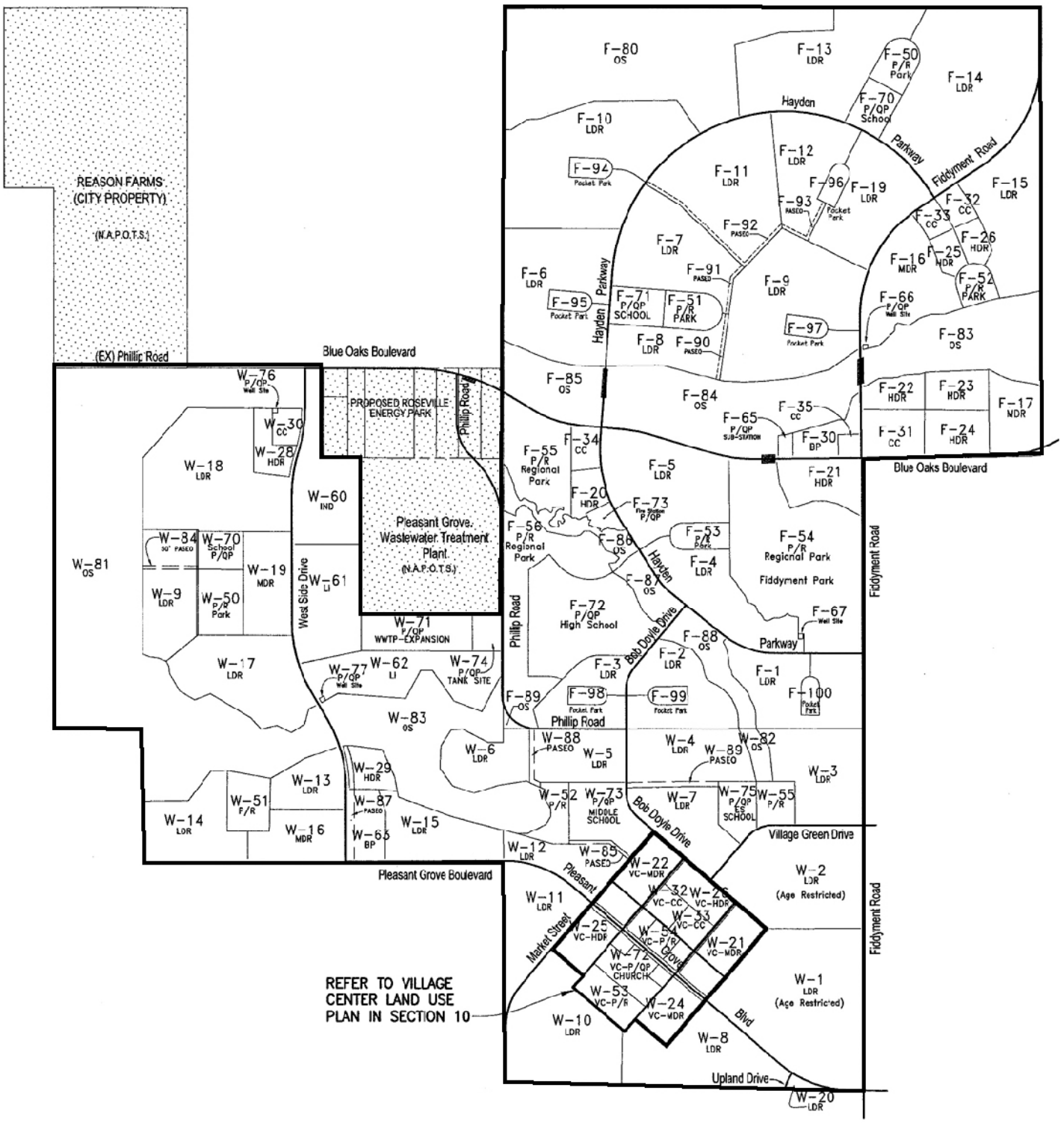


FIGURE **4.1-6**

West Roseville Specific Plan Land Use Plan

Scale: 1" = 2000'

10659-00

Source: West Roseville Specific Plan 2003

City of Roseville

EIP ASSOCIATES

and acreage amounts in the proposed WRSP Area. The types of uses allowed under the WRSP are those that are permitted or conditionally permitted in the Zoning Ordinance. Due to the nature of this project and its proximity to the PGWWTP, the City has narrowed the uses that would be allowed within the proposed industrial zones, as illustrated in Table 4.1-4. Table 4.1-5 contains a list of permitted uses within the residential areas of the WRSP Area. Tables 4.1-6 and 4.1-7 contain permitted uses within the public/quasi-public and commercial areas, which include business professional, general commercial, neighborhood commercial, and community commercial.

Table 4.1-3 Proposed West Roseville Specific Plan Land Uses

Specific Plan Designation	Land Use	Total Acres	Total DUs
LDR	Low-Density Residential	1,355	4,842
LDR (Age Restricted)	Low-Density Residential	147	710
MDR	Medium-Density Residential	143	1,064
HDR	High-Density Residential	110	1,774
OS	Open Space	670	
OS	Paseo	15	
P/R	Park	251	
P/R	Pocket Parks	19	
P/QP	Public/Quasi-Public	148	
CC	Community Commercial	49	40
BP	Business Professional	20	
LI	Light Industrial	74	
IND	Industrial	34	
R/W	Road Right-of-Way	128	
	Total	***3,162***	***8,430***

NOTES:
DUs = dwelling units
Minor adjustments to total due to rounding
SOURCE: West Roseville Specific Plan, September 15, 2003

Table 4.1-4 Industrial Zone Districts Permitted and Conditionally Permitted Uses

	Light Industrial (M1)	Industrial (M2)
Agricultural and Open Space Use Types		
Agricultural	P	P
Resource Protection and Restoration	P	P
Civic Use Types		
Community Assembly	CUP	CUP
Community Services	P	P
Essential Services	P	P
Intensive Public Services	—	CUP
Public Parking Services	P	P
Social Services Food Distribution	A/CUP	A/CUP
Food Service	A/CUP	A/CUP

Table 4.1-4 Industrial Zone Districts Permitted and Conditionally Permitted Uses

	Light Industrial (M1)	Industrial (M2)
Commercial Use Types		
Adult Business Establishments	CUP	CUP
Animal Sales and Service		
▪ Kennels	P	P
▪ Veterinary Clinic	P	P
▪ Veterinary Hospital	P	P
Automotive and Equipment		
▪ Automotive Rental	CUP	—
▪ Automotive Repairs	P	CUP
▪ Car Wash and Detailing	P	CUP
▪ Commercial Parking	P	P
▪ Heavy Equipment Rental, Repair and Sales	P	P
▪ Gasoline Sales	P	P
▪ Impound Yards	CUP	P
Broadcasting and Recording Studios	P	P
Building Material Stores	P	P
Business Support Services	P	CUP
Commercial Recreation		
▪ Indoor Sports and Recreation	P	P
▪ Outdoor Entertainment	CUP	CUP
▪ Outdoor Sports and Recreation	P	P
▪ Large Amusement Complexes	CUP	CUP
Eating and Drinking Establishments, Convenience	CUP	CUP
Maintenance and Repair	CUP	CUP
Substance Abuse Treatment Clinic	CUP	CUP
Neighborhood Commercial	CUP	CUP
Nightclubs	CUP	CUP
Nursery, Retail	P	P
Offices, Professional	CUP	CUP
Personal Services	CUP	CUP
Retail Sales and Services	—	—
Specialized Education and Training		
▪ Vocational Schools	CUP	CUP
▪ Specialty Schools	CUP	CUP
Storage, Personal Storage Facility	P	P
Industrial Use Types		
Day Care Center, Secondary (employees only)	CUP	—
Equipment and Materials Storage Yards	CUP	P
General Industrial	CUP	P
Hazardous Materials Handling	CUP	P
Laundries, Commercial	P	P
Light Manufacturing	P	P
Printing and Publishing	P	P
Recycling, Scrap and Dismantling		
Enclosed	P	P
Unenclosed	CUP	P
Research Services	CUP	CUP
Specialized Industrial	CUP	CUP

Table 4.1-4 Industrial Zone Districts Permitted and Conditionally Permitted Uses

	Light Industrial (M1)	Industrial (M2)
Wholesale and Distribution		
▪ Light	P	P
▪ Heavy	CUP	P
Transportation and Communication Use Types		
Antennas and Communications Facilities		
▪ Developed Lot	P	P
▪ Undeveloped Lot	CUP	CUP
Heliport	CUP	CUP
Intermodal Facilities	P	P

NOTES:
A = Permitted uses and structures shall comply with the City's adopted Design Guidelines, applicable specific plans, and any other applicable requirements of this Title.
P = Permitted Use
CUP = Conditional Use Permit

SOURCE: Roseville Municipal Code – Title 19 Zoning, West Roseville Specific Plan, September 2003

Table 4.1-5 Residential Zone District Permitted and Conditionally Permitted Uses

	R1	RS	R2	R3	RMU
Agriculture and Open Space Uses					
Animal keeping	P	P	P	P	P
Resource Protection and Restoration	P	P	P	P	P
Resource Related Recreation	P	P	P	P	P
Civic Use Types					
Community Assembly	CUP	CUP	CUP	P	P
Community Services	CUP	CUPO	CUP	CUP	P
Essential Services	P	P	P	P	P
Schools, Elementary and Secondary	P	P	P	P	P
Schools, Private Elementary and Secondary	CUP	CUPO	CUP	CUP	P
Residential Use Types					
Community Care Facilities, small	P	P	P	P	P
Community Care Facilities, large	CUP	CUPO	CUP	P	P
Commercial Use Types					
Commercial Recreation, Residential Recreation Facilities	CUP	CUP	CUP	CUP	P
Community Care Facility	—	—	—	P	P
Day Care Center	CUP	CUPO	CUP	CUP	P
Long Term Care Facility	—	—	—	CUP	P
Neighborhood Commercial	—	—	—	CUP	P

NOTES:
CUP = Conditional Use Permit required.
P = Principally Permitted use.
– = Use not permitted in that zone district.

SOURCE: City of Roseville Zoning Ordinance Section 19.10.020, West Roseville Specific Plan, September 2003.

Table 4.1-6 Civic and Resource Protection Zone District Permitted Uses

	PR	OS	P/QP
Agricultural and Open Space Use Types			
Agricultural	—	P	—
Animal Keeping	—	—	—
Resource Protection and Restoration	P	P	P
Resource Related Recreation	P	P	P
Civic Use Types			
Community Assembly	P	CUP	P
Community Services	P	P	P
Essential Services	P	P	P
Hospital Services			
▪ General	—	—	P
▪ Psychiatric	—	—	P
Intensive Public Facilities	–	–	P
Libraries and Museums, Private	P	CUP	P
Public Parking Services	—	—	P
Schools			
▪ College and University	—	—	P
▪ Elementary and Secondary	P	—	P
▪ Private Elementary and Secondary	—	—	CUP
Residential Use Types			
Caretaker/Employee Housing	A	—	A
Dwelling, Single-Family	CUP	—	CUP
Commercial Recreation			
Indoor Sports and recreation	P	—	P
Outdoor Entertainment	CUP	—	CUP
Outdoor Sports and Recreation	CUP	—	CUP
Large Amusement Complex	CUP	—	—
Day Care Center	P	—	P

NOTES:
CUP = Conditional Use Permit required.
P = Principally Permitted use.
– = Use not permitted in that zone district.
A = Administratively Permitted use.
SOURCE: City of Roseville Zoning Ordinance Section 19.10.020, West Roseville Specific Plan, September 2003.

Table 4.1-7 Commercial Zone District Permitted and Conditionally Permitted Uses

	BP	NC	CC	GC
Agriculture and Open Space Use Types				
Resource Protection and Restoration	CUP	CUP	CUP	CUP
Resources Related Recreation	P	P	P	P
Civic Use Types				
Community Assembly	CUP	P	P	P
Community Services	P	CUP	P	P
Essential Services	P	P	P	P
Hospital Services				
▪ General Hospital Services	—	—	CUP	CUP
▪ Psychiatric Hospital Services	—	—	CUP	CUP
Libraries and Museums, Private	—	CUP	P	P
Public Parking Services	P	P	P	P
Schools				
▪ College and University	A	—	P	P
▪ Elementary and Secondary	P	P	P	P
▪ Private Elementary and Secondary	—	CUP	CUP	CUP
Social Services				
▪ Food Distribution	—	—	—	A/CUP
▪ Food Service	—	—	—	A/CUP
▪ Temporary Resident Shelter	—	—	—	A/CUP
Residential Use Types				
Caretaker/Employee Housing	–	CUP	CUP	CUP
Dwelling				
▪ Multi-Family	—	CUP	CUP	—
▪ Single-Family	—	CUP	CUP	CUP
▪ Two-Family	—	CUP	CUP	CUP
Family Day Care Home, Small	P	P	P	P
Family Day Care Home, Large	CUP	CUP	CUP	CUP
Single Room Occupant	—	—	—	—
Commercial Use Types				
Adult Oriented Businesses	—	—	—	P
Animal Sales and Service				
▪ Grooming and Pet Stores	—	P	P	P
▪ Kennels	—	—	—	—
▪ Veterinary Clinic	—	CUP	P	P
▪ Veterinary Hospital	—	—	CUP	CUP
Automotive and Equipment				
▪ Automotive Rentals	—	—	—	P
▪ Automotive Repairs	—	—	CUP	P
▪ Automotive Sales	—	—	CUP	P
▪ Car Wash and Detailing	—	—	CUP	P
▪ Commercial Parking	P	—	—	P
▪ Heavy Equipment Rental and Sales	—	—	—	P
▪ Equipment Repair	—	—	—	CUP
▪ Gasoline Sales	CUP	P	P	P
Banks and Financial Services	P	P	P	P
Bars and Drinking Places	—	—	P	P
Broadcasting and Recording Studios	P	—	—	P
Building Material stores	—	—	CUP	P

Table 4.1-7 Commercial Zone District Permitted and Conditionally Permitted Uses

	BP	NC	CC	GC
Business Support Services	P	—	P	P
Commercial Recreation				
▪ Amusement Center	—	CUP	P	P
▪ Indoor Entertainment	—	—	P	P
▪ Indoor Sports and Recreation	—	—	P	P
▪ Outdoor Entertainment	—	—	—	CUP
▪ Outdoor Sports and Recreation	—	—	—	P
▪ Large Amusement Complexes	—	—	—	CUP
Commercial Use Types				
Community Care Facility	P	P	P	P
Day Care Center	P	P	P	P
Eating and Drinking Establishments				
▪ Fast Food with Drive Through	—	—	P	P
▪ Convenience	P	P	P	P
▪ Full Service	P	P	P	P
Food and Beverage Retail Sales	—	—	P	P
Funeral and Internment Services	—	—	P	P
Lodging Services	—	—	P	P
Long Term Care Facility	CUP	CUP	P	P
Maintenance and Repair	—	P	P	P
Medical Service				
▪ General	P	P	P	P
▪ Substance Abuse Treatment Clinics	—	—	—	CUP
Neighborhood Commercial	P	P	—	—
Nightclubs	—	—	CUP	CUP
Nursery, Retail	—	—	—	P
Offices, Professional	P	P	P	P
Personal Services	P	P	P	P
Retail Sales and Services	—	—	P	P
Specialized Education and Training				
▪ Vocational Schools	—	—	P	P
▪ Specialty Schools	—	CUP	P	P
Storage, Personal Storage Facility	—	—	CUP	P
Industrial Use Types				
Laundries, Commercial	—	—	CUP	CUP
Printing & Publishing	—	—	—	CUP
Research Services	—	—	—	P
Wholesaling and Distribution, Light	—	—	—	P
Transportation and Communication Use Types				
Antennas and Communications Facilities				
▪ Developed Lot	P	P	P	P
▪ Undeveloped Lot	CUP	CUP	CUP	CUP
Heliport	CUP	CUP	CUP	CUP
Intermodal Facilities	CUP	CUP	CUP	CUP

NOTES:
CUP = Conditional Use Permit required
P = Principally Permitted use
– = Use not permitted in that zone district.
A = Administratively Permitted use
BP = Business Professional
NC = Neighborhood Commercial
CC = Community Commercial
GC = General Commercial
SOURCE: City of Roseville Zoning Ordinance Section 19.10.020, West Roseville Specific Plan, September 2003

Remainder Area

As discussed in Chapter 1 of this EIR, no specific development or plan is proposed in the Remainder Area. However, development assumptions are made to provide a basis for the EIR analysis (shown in Table 2-3 in Chapter 2). Because there is no site plan, this analysis assumes that any proposed land uses could occur anywhere in the Remainder Area except in the 100-year floodplain or within one-quarter mile of the western border, as both of these areas are assumed to remain as open space. For this analysis, any of the assumed land uses could occur adjacent to each other.

Agricultural Impacts

The CDC has developed a Farmland Mapping and Monitoring Program that classifies the different agricultural soil types related to their ability to sustain agricultural crops and for lands on which existing vegetation is suited to the grazing of livestock. The analysis of both the WRSP and the Remainder Area uses these maps to determine the potential loss of Prime Farmland, Farmland of Statewide Importance, or Unique Farmlands.

Standards of Significance

Significant impacts are identified in cases where the proposed changes in type and intensity of land uses are incompatible with uses on or adjacent to the site. This analysis assumes implementation of existing applicable General Plan policies, Improvement Standards, and design standards prior to determining significance, so these requirements do not appear as mitigation measures.

For purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area would do any of the following:

Agriculture

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use
- Conflict with existing zoning for agricultural use or a Williamson Act contract
- Involve other changes in the existing environment, which, due to their location or nature, could result in the conversion of Farmland to nonagricultural uses (i.e., sensitive uses such as residential uses adjacent to agricultural, which could result in a restriction on agricultural activities)

Land Use

- Be incompatible with existing and/or proposed adjacent land uses

Land use conflicts can arise when (1) a new development or land use could cause impacts on persons or the physical environment in the vicinity of the project site or elsewhere or (2) conditions on or near the project site could have impacts on the persons or development introduced onto the site by the new project. Both of these circumstances must be considered when evaluating land use compatibility. Incompatibility can arise from placing a particular development or land use at an inappropriate location, or from some aspect of the project design or scope. Depending on the nature of the impact and its severity, land use compatibility conflicts can range from minor irritations and nuisances to significant effects on human health or safety.[24]

Long-term incompatibilities arise when adjacent land uses result in activities that could conflict with each other. For example, in general, land uses that produce excessive noise, light, dust, odors, traffic, or hazardous emissions are undesirable when they intrude on places where people sleep and recreate (residences and parks). Therefore, some industrial or agricultural uses or busy roadways (which can produce noise, dust, odor, and so on) are not considered compatible with residential uses unless buffers, landscaping, or screening can be used to protect residents from health hazards or nuisances.

Impacts

IMPACT 4.1-1:	POTENTIAL INCOMPATIBILITY OF INTERNAL LAND USES.	
Applicable Policies and Regulations:	City of Roseville Community Design Guidelines City of Roseville Zoning Ordinance	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.1-1 (Deed disclosure); MM 4.5-1 (Construction noise reduction); MM 4.5-3 (Commercial noise control); MM 4.5-5 (Industrial facilities noise controls); MM 4.5-6 (Attenuate stadium and other school noise); MM 4.5-8 (Attenuate park noise); MM 4.13-1(a)(Restrict lighting and hours); MM 4.13-1(b) (Placement of lights)	MM 4.1-2 (Policies to minimize agricultural impacts); MM 4.5-2 (Construction noise policies); MM 4.5-4 (Commercial noise policies); MM 4.5-7 (School noise policies); MM 4.5-9 (Park noise policies); MM 4.13-2 (Light and glare policies)
Significance after Mitigation:	Significant and Unavoidable	Significant and Unavoidable

[24] As used in this report, "nuisance" is defined to mean "annoying, unpleasant, or obnoxious" and is not limited to the legal sense of the word.

Internal Compatibility

West Roseville Specific Plan

Development of the WRSP Area would change the character of the WRSP Area, replacing seasonal grazing land and open space with urban, developed uses. In general, activities and traffic within the WRSP Area would increase. The construction phase of the WRSP would also involve significant noise, activity, and dust over a period of several years. Such activities could affect uses in the surrounding area outside of the WRSP Area, in particular in portions of the Del Webb Specific Plan neighborhood and portions of the North Roseville Specific Plan, as well as those residences that will remain in the WRSP Area (i.e., Corin residence), or in the Remainder Area (e.g., residences north of the City-owned land).

Residential uses are most sensitive to land use incompatibility because outdoor use is common and residential uses are often occupied 24 hours a day by people of all ages, including the very young and elderly, who are more sensitive to disturbance and health risk factors. The WRSP Area is being developed with a variety of nonresidential uses, including public/quasi-public uses, schools, open space, parks, commercial, business professional, light industrial, and industrial. As shown in Figure 4.1-6, these uses would be adjacent to residential areas throughout the WRSP Area, which could lead to incompatibility issues such as noise from equipment and traffic, activity associated with parks and parking areas, and overflow night lighting. Therefore, the impact would be **significant and unavoidable**.

Remainder Area

As discussed in Chapter 2, general land use and infrastructure assumptions have been made for the Remainder Area to assist in evaluating potential impacts associated with expansion of the Sphere of Influence boundary. As shown in Table 2-3 in Chapter 2, the land use assumptions for this area include residential development of a density and type similar to the WRSP Area, along with commercial and business professional uses. As discussed in the WRSP Internal Land Use Compatibility section above, the placement of sensitive land uses such as residences adjacent to schools, parks, fire stations, commercial, and business professional uses could lead to incompatibility issues such as noise from equipment, activity associated with parks users and parking areas, and overflow night lighting. Residential uses are most sensitive to land use incompatibility because outdoor use is common and residential uses are often occupied 24 hours a day by people of all ages, including the very young and elderly, who are more sensitive to disturbance and health risk factors. At this time, because it is not known where specific land uses would be located within the Remainder Area, this analysis assumes that residential areas could be located adjacent to parks, schools, industrial, commercial, and business professional uses. Therefore, the impact would be **significant and unavoidable**.

School and Park Uses

West Roseville Specific Plan

As shown in Figure 4.1-6, the WRSP includes a total of four elementary schools, one middle school, one high school, ten neighborhood parks, seven pocket parks, and two large Citywide parks (Fiddyment Park and the Regional Sports Park). The proposed schools and parks would be in proximity to residential areas. Table 4.1-4 includes a list of all uses permitted within a residential zone. The placement of residential uses in close proximity to neighborhood parks and elementary schools would not be considered incompatible, because elementary schools and neighborhood parks generally do not include any activities or uses that would be considered a nuisance or hazard to residents. The City encourages locating parks and schools adjacent to each other to promote a shared use (General Plan policy FA-2). According to Table 4.1-5, schools are permitted uses within residential areas, indicating that they are compatible uses. Additionally any noise from children playing during the daytime hours would be consistent with the character of a residential neighborhood and therefore compatible. In addition, school activities generally occur during the day, when noise and traffic associated with school activities would normally not be considered a nuisance (addressed in greater detail in Section 4.5, Noise).

The WRSP includes one high school located on the Fiddyment Ranch property east of the PGWWTP. The high school is located immediately adjacent to low-density residential uses to the south, open space to the east, and park uses to the north and west. One middle school is located in the southern portion of the site, on the Westpark property, adjacent to low-density residential to the north, east, and southwest, medium-density residential to the southeast within the Village Center, and a park to the west. Similar to the elementary schools, the proposed middle and high schools would be considered important components of the residential neighborhoods. However, the high school includes parking lots and an outdoor stadium to be used for a variety of school and community events. The high school would introduce elements that could be considered incompatible with residential areas, including stadium lights, school-related traffic, spillover parking, and the associated traffic and pedestrian noise.

To address lighting issues associated with the high school stadium (and other schools), MM 4.13-1(a) in Section 4.13, Aesthetics and Visual Resources, requires that to the extent feasible high-powered floodlights will be discouraged within the WRSP Area for any recreation or other activities and, further, that lights shall be turned off no later than 11:00 P.M. if located within 300 feet of residential uses. MM 4.13-1(b) requires siting of light-producing uses to minimize impacts on adjacent uses and the use of shielded fixtures, which would reduce lighting impacts on adjacent properties. Implementation of MM 4.13-1(a) and MM 4.13-1(b) would reduce the potential lighting impacts of the proposed high school and middle school and parks to a less-than-significant level. However, the City cannot compel the school

district to adopt these mitigation measures because the City does not have jurisdiction over school projects. Therefore, the lighting impact associated with school uses would be considered **significant and unavoidable**.

The WRSP includes two large Citywide parks adjacent to residential areas. Most park activities are generally considered compatible with residential uses. The proposed Fiddyment Park, located west of Fiddyment Road, may potentially contain a variety of active and passive recreational opportunities, with residential areas located adjacent to the western boundary of the park. Fiddyment Park would include bike and pedestrian paths, an outdoor bandstand area, activity greens, a disc golf course and a small multi-purpose center. For the most part, these uses would not require nighttime lighting for recreational activities. Areas to include lighting would be the parking lots, outdoor festival area, and some walkways. Lighting in these areas would not be obtrusive. In contrast, the Regional Sports Park, located north of the proposed high school and west of Hayden Parkway, does include numerous lighted outdoor soccer fields that would require nighttime lighting. Similar to the high school, the types of uses proposed in the Regional Sports Park could generate noise and/or light at levels that could be considered an annoyance to the residences located southeast of the Regional Sports Park. WRSP Design Guidelines call for a wood fence between the high school and the low density residential to the south. Recreation fields in the northern portion of the sports park, west of the area designated for high-density residential, would not include any lights for nighttime activities. In addition, as discussed above, nighttime activities would be required to end no later than 11:00 P.M. School noise is exempt from the City's Noise Ordinance. The noise and lighting issues are addressed in greater detail in Sections 4.5 (Noise) and 4.13 (Aesthetics and Visual Resources).

MM 4.13-1(a) requires that high-powered floodlights will be discouraged within the WRSP Area for any recreation or other activities and that lights be turned off no later than 11:00 P.M. if located within 300 feet of residential uses. MM 4.13-1(b) requires siting of light-producing uses to minimize impacts on adjacent uses and the use of shielded fixtures, which would reduce lighting impacts on adjacent properties. Compliance with these mitigation measures would be considered adequate to reduce light impacts associated with the proposed Fiddyment Park and the Regional Sports Park to a **less-than-significant** level.

Remainder Area

The placement of elementary schools and neighborhood parks within residential areas is considered compatible with City Zoning (refer to Table 4.1-5). However, if residential areas are located adjacent to high schools or large regional parks, there could be a potential incompatibility associated with the increase in traffic, spillover parking, and lighted facilities, as discussed above under the WRSP. However,

the City cannot compel the school district to adopt any mitigation measures because the City does not have jurisdiction over the development and approval of schools. Therefore, the impacts associated with lights from schools within the Remainder Area would be considered **significant and unavoidable**.

Open Space and Residential Uses

West Roseville Specific Plan

Generally, residential areas would be considered compatible with adjacent open space areas (as shown in Table 4.1-3). The close proximity to open space areas and easy access to trails is often considered an amenity for residents. However, there is the potential for an incompatibility to occur between residential uses and open space areas if the activities in the developed areas would result in noise or activities that could conflict with the ability to enjoy the quiet solitude of the open space areas or conflict with the maintenance of these areas.

Human activities also affect the wildlife and habitat that is preserved in open space areas. Section 4.7, Biological Resources, discusses the management measures included in the Section 404 permit and Streambed Alteration Agreements designed to minimize impacts to the open space areas and to protect the resources present.

The WRSP includes bicycle trails, pedestrian paths, and other multi-use trails throughout the parks, paseos, and open space areas on the site. Numerous trails are located either in open space areas adjacent to the backyards of residences or across the street in open space areas that abut roadways. The WRSP Design Guidelines require that all backyards or sideyards adjacent to open space areas be enclosed with either an open fence or a wood fence. Backyards adjacent to parks would include masonry fencing. Residential areas adjacent to open space would include either an open view fence of ornamental metal or tubular steel or a wood fence. This would ensure a separation for the residents as well as minimize any potential incompatibilities with the adjacent bike trail or users of the open space areas. It is not anticipated that users of the bike trail would create substantial noise, present a safety hazard, or result in any activities that would be considered incompatible with residential areas.

As the WRSP Area is located in a rural area of the County, there could be an increased nuisance to residents from the presence of insects and wildlife that live in this part of the foothills. The Placer County Mosquito Control District was established in 1996, and in spring 2000 Measure M was passed to provide funding for implementation of mosquito control in western Placer County, which includes the area from Newcastle to the Sacramento County line. Mosquito abatement activities began in the County, on a limited basis, in spring 2002. It is anticipated more active vector control will occur in the future as more

staff is hired by the District.[25] Currently, the City of Roseville provides mosquito abatement services to residents. The Placer County Animal Control responds to complaints associated with other wildlife creating a nuisance or presenting a danger to residents within the County, including the City of Roseville. For the above reasons, potential conflicts between residences and open space would be considered **less than significant**.

Remainder Area

Residential areas would be considered compatible with adjacent open space areas (as shown in Table 4.1-3); the close proximity of residences to open space areas and trails is often considered an amenity for residents.

Any potential incompatibility between residential uses and open space areas that could result from noise or activities that would conflict with the ability to enjoy the quiet solitude of the open space or maintenance of these areas are addressed in Section 4.7 (Biological Resources). This section discusses the management measures included in the Section 404 permit and Streambed Alteration Agreements designed to minimize any impacts to the open space areas and to protect the resources present.

It is anticipated that, similar to the WRSP Area, development within the Remainder Area would include bicycle trails, pedestrian paths, and other multi-use trails within the parks and open space areas throughout the site. As with the WRSP Area, it is not anticipated that location of residences in close proximity to trails and open space areas would result in a land use incompatibility. The impact would be considered **less than significant**. The same is true for the potential nuisance caused by placing residences in areas where there are insects and wildlife because these potential nuisances are considered part of the natural environment and cannot be completely eliminated. As discussed previously, the City of Roseville provides vector control, as does the Placer County Mosquito Control District.

Fire Stations

West Roseville Specific Plan

Because fire stations respond to emergencies at all times of the day or night, residents could be disturbed by sirens. As shown in Figure 4.1-6, a proposed fire station would be located off Hayden Parkway north of a proposed high-density residential site and open space to the south and west. Nearby low-density residential areas would be located across Hayden Parkway to the east and to the north and south of the station. As discussed on page 4.5-27 in Section 4.5 (Noise), although noise levels associated with

[25] www.placermosquito.org,site accessed December 11, 2002

emergency vehicles could be annoying to residential uses, these types of noise sources are exempt under the City's Noise Ordinance (Section 9.24.020(c)). Therefore, the impact is **less than significant**.

Remainder Area

The City's fire department has indicated there is a potential that a second fire station would be required in the Remainder Area, although the location of a second fire station is not known. If a fire station is located near residential areas, the noise associated with sirens and alarms may be annoying to any nearby residential areas. However, these types of noises are exempt under the City's Noise Ordinance (Section 9.24.020(c)). Therefore, the impact is **less than significant**.

Commercial and Office Uses

West Roseville Specific Plan

Approximately 67 acres of community commercial and business professional uses are proposed within the WRSP Area. Although generally situated near arterial roads, some of the community commercial and business professional uses in the WRSP Area would be adjacent to residential uses. The City of Roseville Community Design Guidelines (1995) include specific requirements for commercial development. Commercial development adjacent to residential areas must include side and rear setbacks with a sufficient planter area to screen any undesirable views or for the placement of sound barriers or fencing.[26] In addition, the City's Design Guidelines require that "lighting sources include cut-off lenses to avoid light spillage and glare on adjacent properties."[27] In addition to the City's Community Design Guidelines, the Design Guidelines prepared for the WRSP Area includes specific requirements to ensure that landscaping, building setbacks, and berming would be appropriate to screen noise and other visual intrusions from commercial and office uses on nearby residential areas. The WRSP Design Guidelines state that most of the community commercial and business professional uses have been located adjacent to high-density residential areas to facilitate easy access between the uses. The Design Guidelines also state that all service and delivery areas will be screened by walls required along the rear of the buildings. Furthermore, the WRSP would be required to comply with the Roseville Zoning Ordinance, which mandates proper screening, building set backs, landscaping requirements, and light intensities, which would promote compatibility between residential and adjacent business professional or commercial uses. Section 4.5, Noise, also includes MM 4.5-3, which requires that any commercial development demonstrate that it meets City's noise standards. It is anticipated this impact would be **less than significant**.

[26] Community Design Guidelines, City of Roseville, December 6, 1995, p. 15
[27] Community Design Guidelines, City of Roseville, December 6, 1995, p. 29

Remainder Area

The location of residential areas adjacent to commercial or business professional uses could result in incompatibilities due to noise or visual intrusions. Compliance with the City's Community Design Guidelines, which mandate proper screening, building setbacks and height, and landscaping, would ensure that commercial and business professional uses are compatible with residential uses. In addition, MM 4.5-4 from Section 4.5, Noise, requires that any commercial development proposed within 150 feet of residences conduct an acoustical analysis to demonstrate compliance with City standards. This impact would therefore be reduced to a **less-than-significant** level.

Village Center

West Roseville Specific Plan

The WRSP Area includes approximately 121 acres designated in the Village Center with a Village Center General Plan designation. The Village Center is intended to create a unique village environment. Uses within the Village Commercial designation include residential, commercial, park, and quasi-public uses (refer to Figure 4.1-6). The Village Commercial area is designed in a grid pattern to emulate the design of either smaller villages or dense urban areas residential uses are adjacent to commercial uses and residential is above retail. The Village Center would include Special Area (SA) overlay zones to allow customized development standards and/or permitted uses. Within the Village Center would be a range of housing including higher-density single-family attached and detached units with an average density of 12 units per acre. The WRSP includes a list of permitted uses within the different land use categories (refer to the WRSP for more detail). The types of uses, as described in the Specific Plan, would be designed to minimize any internal land use conflicts associated with noise and lighting. Therefore, this impact would be considered **less than significant**.

Industrial

West Roseville Specific Plan

Approximately 108.5 acres are designated for Light Industrial and General Industrial land uses in the western portion of the WRSP Area, south and west of the PGWWTP, and within a 1,000-foot buffer surrounding the PGWWTP. The buffer which excludes residential land uses, pertains only to the PGWWTP. Table 4.1-4 details the numerous types of light industrial and commercial uses that would be permitted in this area. As shown on Figure 4.1-6, the proposed industrial and light industrial uses are located adjacent to roads and areas designated for open space uses, parks, or community commercial. No industrial uses are located immediately adjacent to any residential area. The nearest residential area would be located approximately 200 feet from the industrial area. The closest residential area on the west

side of the WRSP Area would be separated by West Side Drive, a six-lane arterial. These uses surrounding the proposed industrial uses would act as a buffer between the PGWWTP and the residential areas to the west and south. In addition, the WRSP Area would be subject to both the City's Community Design Guidelines and the WRSP Design Guidelines. The City's Community Design Guidelines require that industrial development include sufficient side and rear setbacks to include areas for landscaping and sound barriers to screen undesirable views and provide a noise buffer.[28] The City's Design Guidelines also include specific requirements for site layout, landscaping, and fencing to ensure all potential incompatibilities with adjacent uses are minimized. In addition, industrial uses would be subject to the WRSP Design Guidelines, which provide standards for setbacks, landscaping, lighting, and other design elements. These measures would minimize potential visual incompatibility with surrounding uses. The WRSP Design Guidelines require a six-foot masonry wall between the light industrial uses and the PGWWTP, the west and south edges of the PGWWTP, and the southern edge of the proposed tank sites. Light industrial and industrial uses are also subject to extensive State and federal regulations governing hazardous materials. In addition, MM 4.5-5 in Section 4.5, Noise, requires that any industrial or light industrial development demonstrate that they meet the City's noise standards. For these reasons, the impact would be considered **less than significant**.

Agricultural

West Roseville Specific Plan

During buildout of the WRSP Area, agricultural uses could continue on land within the WRSP Area as well as the adjacent Remainder Area for an unknown period of time. Agricultural operations can produce dust, noise, and odor at levels that are considered a nuisance when close to residential areas. Active agricultural activities within the WRSP Area include a pistachio orchard and seasonal grazing. Grazing of cattle could create some noise, odors, and dust but would not significantly affect future residents within the WRSP Area, because it is likely grazing activities would be phased out as the WRSP is developed.

An active 33.5-acre pistachio orchard is located just north of Blue Oaks Boulevard, east of Fiddyment Road. Approximately 20 acres of the orchard would be developed, with the remaining 40 acres of Prime Farmland left in undeveloped open space. Approximately two acres would be used as a community garden located in the open space area just north of the high-density residential area in the northern portion of the WRSP Area (north of Blue Oaks Boulevard). A community garden is an allowable use in

[28] Community Design Guidelines, City of Roseville, December 6, 1995, p. 49-50

open space areas, and would not include aerial pesticide spraying or other agricultural activities that could conflict with residential uses.

Because there is the potential for new development to be exposed to agricultural activities within the WRSP Area as the area is developing, compliance with MM 4.1-1, which requires all residents to sign a disclosure at the time of purchase/rental, would reduce any potential incompatibilities to a **less-than-significant** level.

Temporary Disturbances during Construction

West Roseville Specific Plan

As discussed in Chapter 2, the WRSP Area would be constructed in phases. Development would take place near the existing residence within the WRSP Area (Corin residence) as well as around the WRSP Area (O'Brien and other residences located near the project site) and the Del Webb Specific Plan and the NRSP area. Residents in these areas could be subject to short-term increases in air pollution associated with dust and vehicle emissions as well as construction noise. In addition, noise from well drilling, which may require short periods of 24-hour work, could occur through buildout of the WRSP, creating a potential disturbance to residents of the WRSP Area and adjacent developed areas. Potential short-term disturbances associated with WRSP construction, including well drilling, are addressed in Section 4.4 (Air Quality) and Section 4.5 (Noise). MM 4.5-1 would reduce construction noise to a **less-than-significant** level by placing loud equipment away from residences and blocking noise from well-drilling equipment.

Summary

West Roseville Specific Plan

In summary, with implementation of applicable plans, regulations, ordinances, and/or guidelines and mitigation measures identified above, impacts related to land use compatibility associated with commercial/office uses, industrial, and agricultural uses would be less than significant. Impacts associated with temporary disturbances during construction and well drilling could be reduced to less-than-significant levels with mitigation. However, light associated with school uses would be the responsibility of the school district, and the City cannot compel the district to meet City standards. Therefore, the impact with regard to land use compatibility between the proposed high school and adjacent residential uses is considered **significant and unavoidable**.

Remainder Area

To summarize, potential internal land use incompatibilities could result if residential areas were located adjacent to high schools, regional parks, or commercial uses in the Remainder Area. Implementation of MM 4.1-2, MM 4.5-2, MM 4.5-4, MM 4.5-7, MM 4.5-9, and MM 4.13-2 would ensure that potential incompatibilities would be less than significant. However, because light impacts associated with any future school development within the Remainder Area cannot be fully mitigated, and the City cannot compel the school district to comply with their standards, the impact would be **significant and unavoidable**.

IMPACT 4.1-2:	POTENTIAL INCOMPATIBILITY WITH EXISTING AGRICULTURAL AND OTHER LAND USES IN THE REMAINDER AREA, THE COUNTY, AND THE CITY OF ROSEVILLE	
Applicable Policies and Regulations:	None Applicable	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.1-1 (Deed disclosure); MM 4.1-3 (Fifty-foot setback)	MM 4.1-2 (Policies to minimize agricultural conflicts)
Significance after Mitigation:	Less Than Significant	Less Than Significant

West Roseville Specific Plan

Compatibility With Surrounding Uses

As stated in the Setting section, the WRSP is bordered by the DWSP and the NRSP to the east and agricultural uses in the Remainder Area to the north, south, and west. Fiddyment Road, a two-lane roadway to be expanded to four lanes adjacent to the WRSP area, runs along the western boundary of the City adjacent to the western boundaries of the DWSP and NRSP. The DWSP is an age-restricted residential development that consists primarily of single-family homes focused around recreational facilities and a golf course. It includes up to 3,179 dwelling units and 27 acres of commercial property. The NRSP is also a mixed-use residential development with limited office and commercial development, particularly along Fiddyment Road.

Agricultural Uses

Both the Westpark and Signature properties would be adjacent to undeveloped land to the north, south, and west within the County, including the Remainder Area. As discussed under Impact 4.1-1, adjacent land within the Remainder Area (to the west and north of the Fiddyment Ranch property and to the

south and west of the Westpark property) is currently undeveloped and used for seasonal grazing activities. It is assumed that this land would be urbanized sometime in the future; therefore, in the long term, no incompatibilities with agricultural land are anticipated. Land in the County to the west of the Westpark property is currently used for agricultural activities. Any residential uses would be buffered by the large area of open space included in most of the western portion of the WRSP Area. WRSP residential land uses would also be adjacent to agricultural land in the County to the north and west of the Fiddyment Ranch property. According to the County General Plan and Sunset Industrial Area Plan,[29] this land north of the Fiddyment Property will remain in agricultural use. Seasonal grazing is expected to continue as the primary agricultural activity. Seasonal grazing activities can produce dust, noise, and odor at levels that are considered a nuisance when close to residential areas. The SIAP includes a requirement that agricultural buffers be included to minimize conflicts. The buffers range from 100 feet to 400 feet depending on the crop.[30] This could be a significant impact. MM 4.1-1 specifies that any residential unit located within 500 feet of any active agricultural area carry a deed disclosure informing potential buyers or renters of this agricultural activity. In addition, MM 4.1-3 requires a 50-foot setback along the northern portion of the Fiddyment Ranch property to buffer residential uses in this area from agricultural activities. Compliance with MM 4.1-1 and MM 4.1-3 would reduce the impact to a **less-than-significant level**, by ensuring that prospective buyers or renters be informed about and accept the level of agricultural activity to which they would be exposed and by providing a setback to minimize any potential incompatibilities with adjacent agricultural land in the County.

It should be noted that Placer County is more restrictive of residential uses near agriculture than is the City. The County General Plan requires buffers between agricultural and nonagricultural uses to minimize incompatibilities (refer to County policies 1.H.5, 1.H.6, 17.B.1, and 7.B.3 in Appendix D). These policies would not apply to development in the WRSP Area because it would be under City jurisdiction which, because of its urban nature, does not have such policies. However, MM 4.1-3 includes a 50-foot buffer north of the Fiddyment Ranch property (refer to discussion under Impact 4.1-3), which is equivalent to the County's minimum buffer for grazing land.

Del Webb and North Roseville Specific Plan Areas

Adjacent to the eastern boundary of the WRSP Area are the DWSP and the NRSP areas. Fiddyment Road and Blue Oaks Boulevard provide a buffer between the WRSP Area and the two specific plan areas. Fiddyment Road is currently a two-lane roadway between Pleasant Grove Boulevard and the City limits. This road will be expanded to four lanes, with an ultimate right-of-way of approximately 76 feet. Blue

[29] Sunset Industrial Area Plan, Placer County, Figure 1-1 and p. 1-4, 1997

Oaks Boulevard is currently a two-lane roadway from Crocker Ranch Road, east of Fiddyment Road, to where the road currently ends at the junction with Phillip Road. Blue Oaks Boulevard is slated to be widened to four lanes west of Fiddyment Road through the WRSP Area. The northern portion of the WRSP Area, north of Pleasant Grove Creek, proposes a mix of low-density residential, medium-density residential, and open space uses similar to the type of residential development in Phase 2 and 3 of the NRSP. The portion of the NRSP east of this area includes primarily residential development. The residential development within the NRSP is buffered from Fiddyment Road through an approximately 35-foot landscaped setback (from the edge of the curb to the soundwall) and a 6-foot soundwall. The central portion of the WRSP Area west of the DWSP also includes a mix of residential and park uses that would be similar to the type of residential development within the DWSP. It is anticipated that the WRSP would be a continuation of the type of mixed-use development that characterizes the City today. Uses that would differ, such as the sports complex, and industrial uses are separated from the DWSP and NRSP by low density residential and commercial uses.

The WRSP Area includes a 35-foot landscaped setback along Fiddyment Road and a six-foot high masonry wall, the same as that included in the NRSP. The only area of Fiddyment Road where a soundwall would not be included is along the perimeter of Fiddyment Park. Because residential uses are not considered nuisance generating uses, it is anticipated that the WRSP development of residential uses in these areas would be considered compatible with the residential areas in the adjacent NRSP and the DWSP so that the impact would be considered **less than significant**.

Traffic noise associated with the increase in traffic on area roadways is discussed in Section 4.5, Noise.

The uses proposed in the WRSP Area across from the DWSP include high- and medium-density residential and community commercial at the intersection of Blue Oaks Boulevard and Fiddyment Road. Park, low-density residential, including an age-restricted low-density component, and a small area of community commercial in the area north of Blue Oaks Boulevard are among these proposed uses. Residential densities in this area would range from 0.5 to 6.9 dwelling units per acre for low-density residential, 7 to 12.9 for medium-density, and 13 and higher for high-density uses. Similar to the NRSP, the DWSP is buffered from Fiddyment Road through a 35-foot landscaped setback and a six-foot sound wall. The proposed residential, park, and community commercial uses within the WRSP Area are not anticipated to generate excessive noise, light, dust, odors, or hazardous emissions. As discussed above, development within the WRSP would be subject to the City's Community Design Guidelines as well as the project-specific WRSP Design Guidelines. Because the WRSP proposes uses similar to those within

[30] Sunset Industrial Area Plan, Placer County, p. 1-42, 1997

the DWSP, development along the Fiddyment Road section of the WRSP would require a 35-foot landscaped setback and a minimum of a six-foot masonry wall (except along the perimeter of Fiddyment Park). It is not anticipated that there would be any land use incompatibilities. Therefore, the impact is considered **less than significant**. In addition, due to the distance between the uses proposed in the WRSP Area and the residences in the DWSP, as well as the walls separating these uses, the WRSP would not intrude on the privacy enjoyed by the residences of the DWSP.

O'Brien Property

Adjacent to land designated in the WRSP Area for future industrial use is a commercial dog kennel and residence (O'Brien) located west of the existing Phillip Road and just east of the WRSP Area boundary (refer to Figure 4.1-6). The kennel is not currently located within the City limits, but is within the Remainder Area. The City considers a kennel an allowable use in an industrial area, so it would be considered compatible within the WRSP Area and future development within the Remainder Area. The WRSP Area includes a 10-foot-wide landscaped buffer adjacent to the perimeter of the O'Brien property. The landscaping is designed to serve as a visual screen between these two uses. Because kennels can be noisy, the WRSP Design Guidelines also include a 6-foot masonry sound wall between the O'Brien property and the WRSP Area. If a commercial development is located adjacent to the kennel, potential incompatibility could result due to the noise. However, kennels are allowable uses in commercial as well as light industrial zones. Therefore, the impact is considered **less than significant**.

As noted in Chapter 2, there is the potential that if Blue Oaks Boulevard is aligned further to the south, the City would be required to purchase parcel 017-100-028 (refer to Figure 2-13 [West Roseville Specific Plan Blue Oaks Alignment (Alternative 1)] in the Project Description). This alternative would require the removal of an existing dog kennel structure. This would impact the kennel business and would potentially require the business to be relocated off site, or construction of a new kennel on the O'Brien site. If this alignment is selected, the City would be required to comply with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, and California Government Code, Chapter 16, Section 7260, *et seq.*, that require compensation or other forms of assistance be provided to those whose real property is displaced and/or acquired for a public project such as a roadway widening. The City is currently working with the O'Briens to determine their preferences. Compliance with applicable legal requirements are expected to mitigate any impacts to a **less-than-significant** level.

If the northern alignment to Blue Oaks is chosen, it would not impact the O'Brien Kennel. Land use impacts of the northern alignment include acquisition of property and biological impacts to off-site locations. Biological impacts for off-site improvements are considered in Section 4.7.

Remainder Area

As shown in Table 2-3 in Chapter 2, the land use assumptions for the Remainder Area include residential of a density and type similar to the WRSP, along with commercial and business professional uses. Land designated for agricultural uses within the County is located to the north, west, and south of the Remainder Area. However, the western boundary of the northern and southern portion of the Remainder Area will likely include a one-quarter-mile buffer of undeveloped open space similar to the WRSP. Therefore, it is not anticipated that there would be any potential land use incompatibilities between proposed residential and agricultural uses in the County. County land to the south of the Remainder Area is anticipated to be urbanized due to its proximity to Sacramento County and the proposed Placer Vineyards project. However, land to the north is anticipated to remain in agricultural use. The potential incompatibility between residential and permanent agricultural uses is considered a significant impact. MM 4.1-2 would ensure that when a specific plan is developed for this portion of the Remainder Area, specific policies such as 50-foot buffers are included to address potential incompatibilities at this interface. This measure would reduce the impact to a **less-than-significant** level.

IMPACT 4.1-3:	POTENTIAL INCOMPATIBILITY WITH THE PLEASANT GROVE WASTEWATER TREATMENT PLANT.	
Applicable Policies and Regulations:	None Applicable	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	No Impact
Mitigation Measures:	None required	None required
Significance after Mitigation:	Less Than Significant	No Impact

Water Treatment Plant

Wastewater treatment plants can produce odor and noise at levels considered incompatible with residential uses. The PGWWTP includes a 1,000-foot buffer area that excludes residential development. The uses allowed by the WRSP within this 1,000-foot buffer are more restrictive than uses allowed by City Code. The buffer was established in a separate EIR prepared specifically for the PGWWTP and will expand in proportion to any PGWWTP expansion.

This buffer will ensure there are no land use incompatibilities with residential uses by providing a large separation between the PGWWTP and homes. In addition, because the PGWWTP would not create any significant odor, noise, or health hazard impacts, it is anticipated that there would be no incompatibilities with any residential or non-residential uses within the WRSP Area. The Remainder Area is buffered from the PGWWTP by the City-owned land to the north of the plant.

West Roseville Specific Plan

As shown on Figure 4.1-6, the City's PGWWTP is located just south of City-owned land and adjacent to land designated for light industrial and park uses by the WRSP. In accordance with MM 3-3 in the Wastewater Master Plan EIR (1996), a 1,000-foot buffer was established around the PGWWTP that restricts land use in this buffer to nonresidential development to minimize risks to off-site land uses.[31] Although the buffer was originally intended to mitigate hazards associated with the use of chlorine gas, less hazardous sodium hypochlorite will be used instead upon completion of the plant, which presents only nominal hazards. Nonetheless, the proposed WRSP designates land within the 1,000-foot buffer for industrial, light-industrial, parks, and open space land uses. These uses would be considered compatible with the adjacent PGWWTP because they would not be inhabited 24 hours a day and, with the exception of parks, would include primarily indoor activity. The closest residential areas and the buildings associated with the proposed high school would be located over 1,000 feet from the PGWWTP. Fields and the proposed stadium would be located within the 1,000-foot buffer area; however, because the PGWWTP would not create substantial odors, noise, or health hazards, the buffer would be more than adequate to protect the high school and residential areas from plant operations. In addition, the City of Roseville Fire Marshal reviewed the anticipated chemical use and plant operational design in August 2002 for potential off-site consequences at the WRSP and concluded off-site consequences were not likely to occur. Therefore, this is considered a **less-than-significant impact**.

This analysis also evaluated the 15- to 20-acre plant expansion area located south of the PGWWTP. The uses that would be adjacent to this expansion area within the WRSP Area include light industrial. These uses would be compatible with any future expansion activities.

Remainder Area

The Remainder Area is located over 1,500 feet from the PGWWTP; therefore, no land use incompatibilities and **no impact** would occur.

[31] City of Roseville, *Roseville Regional Wastewater Treatment Service Area Master Plan Draft Environmental Impact Report* (SCH #93092079) May 1996, Chapter 10.0

IMPACT 4.1-4:	CONVERSION OF AGRICULTURAL LAND TO DEVELOPED USES.	
Applicable Policies and Regulations:	None Applicable	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Less Than Significant
Mitigation Measures:	MM 4.1-4 (Provide conservation easement)	None required
Significance after Mitigation:	Significant and Unavoidable	Less Than Significant

Conversion of Agricultural Land

Soils are categorized by their potential use as agricultural land. "Prime Farmland" is defined by the State Department of Conservation as land that has the best combination of physical and chemical characteristics for the production of crops. These lands generally consist of Class I and II soils. They have the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods. Most of the soils at the SOI Amendment Area are Class III and IV, which have severe limitations for agricultural production. The Ramona soils (soil units 174 and 175) and Xerofluvents (193) are Class I and II;[32] however, these soils are limited in extent and are generally in the vicinity of proposed open space areas along Pleasant Grove Creek and Kaseberg Creek.

The NRCS has also rated suitability of soils in Placer County for agriculture using the Storie Index. This index, which consists of six grades ranging from excellent (1) to unsuitable (6), expresses numerically the relative degree of suitability of a soil for general intensive agriculture as it exists at the time of evaluation. The rating is based on soil characteristics only and is obtained by evaluating such factors as soil depth, surface texture, subsoil characteristics, drainage, salts and alkali, and relief. Most of the SOI Amendment Area consists of Storie Index 4 and 5 soils, which are poorly suited for agriculture. There are no Grade 1 soils in the SOI Amendment Area.[33]

Within the Project Area, a total of 4,498 acres of agricultural land, primarily grazing land, would be developed with residential, commercial, light industrial, schools, and other public uses. A total of 1,050 acres would be left in undeveloped open space. Within the WRSP Area there is a total of 40.2 acres of land designated as Prime Farmland. A total of 22.4 acres of Prime Farmland would be developed with

[32] USDA Natural Resources Conservation Service, *Soil Survey Placer County, California, Western Part*, 1980, pp. 11 through 74
[33] USDA Natural Resources Conservation Service, *Soil Survey Placer County, California, Western Part*, 1980, pp. 11 through 76

residential and community garden uses. Up to 1,000 acres off site could also be retired at Reason Farms. Although the farmland will not be lost, it will be converted to fallow land, which will take it out of production. Impacts associated with the conversion of land classified as Prime Farmland and the loss of agricultural productivity of this land is discussed below. However, it should be noted that the retirement of approximately 1,700 acres of Reason Farms was already assumed as part of the City's regional retention facility. The loss of agricultural productivity on this portion of Reason Farms was addressed in the EIR for the City of Roseville Retention Basin Project (Reason Farms), and no future analysis is required.

West Roseville Specific Plan

As stated in the Setting section, the WRSP Area is not under a Williamson Act contract, is not irrigated, and has historically been used for seasonal grazing or dry farming. The CDC Farmland Mapping and Monitoring Program classifies a majority of the site as "Farmland of Local Importance,"[34] with a total of 40.2 acres of land classified as Prime Farmland. Approximately 30 acres of this prime farmland is currently in agricultural production as a pistachio orchard. A total of approximately 22.4 acres of Prime Farmland would be developed with residential uses and a community garden (2.0 acres), leaving the remaining 16.8 acres in undeveloped open space.

In addition, as previously mentioned, the City is acquiring and has set aside funds for the 1,500-acre Reason Farms property located north and west of the SOI Amendment Area for a regional stormwater retention facility. Approximately 560 acres of Reason Farms will be taken out of production to accommodate this facility. The City could choose to take all or a portion of the remaining irrigated acreage (up to 940 acres) out of production as well and retire that land on either an annual or permanent basis. The groundwater that would have been extracted for irrigation purposes would be banked for future use ("in-lieu groundwater banking"). Up to 3,851 AF/yr, which was estimated conservatively, could be banked from this source, assuming 1,080 acres are retired. At a minimum, 500 to 850 acres would need to be retired to mitigate for the extraction of 2,848 AF/yr of groundwater to meet WRSP estimated dry-year demand.[35] Reduced groundwater extraction during dry years at the Reason Farms property would fully offset the anticipated groundwater extraction under the City's proposed water supply strategy for meeting WRSP dry-year water demands.[36] Although the farmland will not be lost, it will be converted, which will take it out of production. The conversion of land classified as Prime Farmland and the loss of agricultural productivity of this land is considered a significant and

[34] California Department of Conservation, Farmland Mapping and Monitoring Program, *Placer County Important Farmland, 1998*, 1999
[35] MWH, *Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan*, Draft June 2003, pp. 5–7
[36] MWH, *Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan*, Draft June 2003, pp. 6-1

unavoidable impact. It should be noted that the retirement of approximately 1,500 acres of Reason Farms was already assumed as part of the City's regional retention facility. The loss of agricultural productivity on this portion of Reason Farms was addressed in the EIR for the City of Roseville Retention Basin Project (Reason Farms) January 2003. (Refer to Impact 4.12-6 in Section 4.12 [Hydrology, Water Quality and Ground Water] for a detailed discussion of potential environmental impacts of groundwater use and land retirement.)

The majority of the WRSP Area is currently anticipated to be developed with residential, commercial, business, and industrial uses, which would contribute to the loss of agricultural production. Although the proposed land use designations would preclude any agricultural use of the land, the loss of grazing land would not be significant. As the area is developed, the area would lose its value for grazing due to the loss of large, uninterrupted areas. The majority of soils within the WRSP Area are unsuitable for many agricultural uses beyond grazing. Conversion of Farmland of Local Importance is not considered significant because of (1) the relatively low value of the property for agricultural purposes as defined by the Farmland Mapping and Monitoring Program, (2) its historically poor ability to produce agricultural crops, (3) its abundance in the region, and (4) it does not exceed a CEQA standard of significance (Appendix G).

However, the project will develop approximately 22.4 acres of land designated Prime Farmland. MM 4.1-4 provides that off-site conservation easements shall be implemented to offset the loss of agricultural land. Purchase of conservation easements, while not likely to result in a 1:1 replacement of in-kind farmlands, would assist in minimizing the impact of loss of Prime Farmland, although not to a less-than-significant level. The loss of 22.4 acres of Prime Farmland within the WRSP Area, is considered a **significant and unavoidable** impact.

Remainder Area

All of the land within the Remainder Area is classified as Farmland of Local Importance. Assuming development would occur similar to the WRSP, it is anticipated that development in this area could convert approximately 1,798 acres to developed uses. Approximately 365 acres could be set aside in open space and 196 acres could be used for parks and other recreation. The loss of Farmland of Local Importance is considered a **less-than-significant** impact for the same reasons set forth above under the discussion of "Conversion of Agricultural Land—West Roseville Specific Plan."

IMPACT 4.1-5:	INTERIM ACCESS TO CITY-OWNED PROPERTY.	
Applicable Policies and Regulations:	None Applicable	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None required	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant

Vehicle Access

West Roseville Specific Plan

Vehicle access will be maintained throughout development of the WRSP. In Phase 1, the on-site portion of Phillip Road between Fiddyment Park and the PGWWTP would be constructed. In Phase 3, Blue Oaks Boulevard would be extended to Phillip Road and the remainder of Phillip Road (off site) connecting with Blue Oaks Boulevard would be constructed. The remaining section of Blue Oaks Boulevard from Phillip Road to West Side Drive would be constructed in Phase 4.

As illustrated by Figure 4.1-7 (Access to Parcels North of Blue Oaks Boulevard), access to residences located north of the City-owned property (in the Remainder Area), is currently provided via Phillip Road, which runs adjacent to and parallel to the PGWWTP. The WRSP proposes to abandon the portion of Phillip Road across the City-owned property and realign this section to intersect with the extension of Blue Oaks Boulevard (refer to Figure 4.1-7). During construction of this new roadway, a temporary road would be constructed off the existing Phillip Road to allow access to the properties north of the City-owned property (refer to Figure 4.1-7). Portions of Phillip Road will be abandoned in Phases 1 and 2 as it is realigned and constructed. The formal abandonment of the original section of Phillip Road is anticipated to occur in Phase 4. Ultimately this road would connect to future development within the northern Remainder Area and the internal roadway system within the Fiddyment Ranch property.

Because access would be provided to residences through development of the WRSP this is considered a **less-than-significant** impact.

Remainder Area

Prior to development of the northern portion of the Remainder Area, an interim roadway will be provided to allow access to residences in this area. Once development occurs in this portion of the Remainder Area, a permanent roadway connection will be constructed. Because access will be provided to residences of the Remainder Area, this is considered a **less-than-significant** impact.

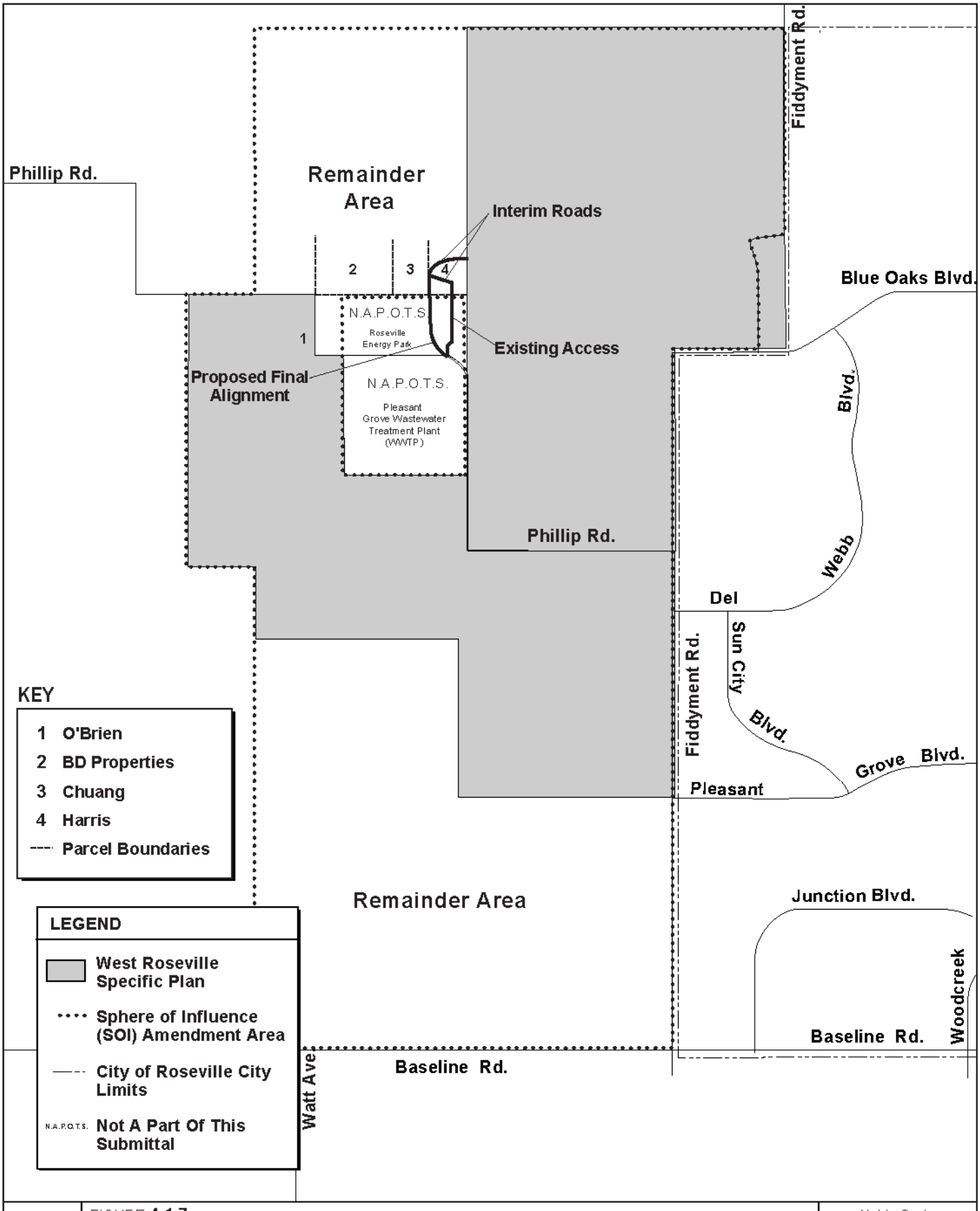


FIGURE **4.1-7**

Access to Parcels North of Blue Oaks Boulevard

Not to Scale

10659-00

Source: EIP Associates, 2003

City of Roseville

IMPACT 4.1-6:	POTENTIAL INCOMPATIBILITY WITH CITY'S GENERAL PLAN AND ZONING CODE.	
Applicable Policies and Regulations:	None Applicable	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None required	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant

Consistency with City's General Plan and Zoning Code

West Roseville Specific Plan

As discussed above, as part of the WRSP, the applicant is proposing to create a new Village Commercial land use designation and associated zone. The Village Center within the WRSP Area would include a mix of residential, commercial, park and public/quasi-public uses. The Village Center Land Use designation is intended to allow for a mix and density of land uses common to a traditional downtown, urban setting. It would allow for flexibility and deviation from the standards and permitted uses included in the primary land use designations from which it is combined. The use of the combining designation requires comprehensive land use planning through the approval of a Specific Plan area. The permitted uses, standards, and extent of deviation are defined in the WRSP. Land uses within the Village Center would be implemented through application of zone districts as specified by the City of Roseville Zoning Ordinance. In recognition of its distinctive form, the Development Standards (DS) or Special Area (SA) overlay zones have been applied to some Village Center uses. The overlay zones customize development standards and/or permitted uses of general zone districts to reflect the unique nature of the Village Center. Because the Village Center includes an SA overlay zone, no separate zoning designation is required.

The WRSP lays out the permitted uses and standards within the Village Center and demonstrates that these uses will be compatible. As discussed in Sections 4.2 through 4.13 of this EIR, the Village Center would not result in any uses that would be incompatible. Therefore, the impact is considered less than significant. Currently, the City's General Plan and Zoning Ordinance does not include a land use designation for Village Center; however, as part of the WRSP, the City would amend its General Plan to include a new land use designation, Village Center (VC). It could also be applied to land uses that currently exist in the City (e.g., residential and commercial), although in different configurations. This is considered a **less-than-significant** impact.

Remainder Area

At this time the land use assumptions for the Remainder Area do not include any amendments to the City's General Plan (except for an amendment to the Land Use Map to indicate it would be in the City's SOI) or Zoning Ordinance. However, in the future, the City may receive a development application that proposes a new land use designation that is not included in the General Plan. A separate environmental review would be required for any development applications within the Remainder Area; therefore, consistency with the City's General Plan and Zoning Ordinance will be addressed at that time. The impact is considered **less than significant**.

Mitigation Measures

MM 4.1-1: *Deed Disclosure (Impact 4.1-1 and Impact 4.1-2 – WRSP)*

In order to reduce conflicting issues between sensitive receptors and agricultural uses, residential units within 500 feet of the orchard or any other active agricultural use shall be provided with a deed disclosure or similar notice approved by the City Attorney regarding the proximity and nature of neighboring agricultural uses. This disclosure shall be applied at the tentative map stage to the affected properties. A written disclosure shall be supplied to the property purchaser or renter by the vendor prior to the completion of the purchase or rental agreement. The text of the disclosure language shall be approved by the City Attorney.

To ensure that residents are made aware of other land uses in proximity to their respective neighborhoods, the developers shall also provide through deed disclosure or other similar notice approved by the City Attorney; the temporary truck route to the PGWWTP and Roseville Energy Park, use of recycled water, proximity to the PGWWTP, proximity to the potential Roseville Energy Park, proximity to parks and schools that may generate noise and light, and proximity to overhead power lines.

To further mitigate noise and lighting impacts MM 4.5-1, MM 4.5-2, MM 4.5-3, MM 4.5-4, MM 4.5-5, MM 4.5-6, MM 4.5-7, MM 4.5-8, MM 4.5-9, MM 4.13-1 and MM 4.13-2 from Section 4.5 (Noise) and Section 4.13 (Aesthetics and Visual Quality) would be required to mitigate Impact 4.1-1. Refer to Sections 4.5 and 4.13 for a discussion of those mitigation measures.

MM 4.1-2: *Policies to Minimize Agricultural Impacts (Impact 4.1-1 and Impact 4.1-2 – Remainder Area)*

Specific Plans and/or other development proposals for the Remainder Area shall minimize conflicts between residential and agricultural uses. Measures to ensure compatibility could include (1) deed disclosure regarding the proximity and nature of neighboring agricultural uses for future residential units within

500 feet of any active agricultural use, (2) minimum 50-foot setbacks from residential structures and agricultural uses, (3) negative easements, and/or (4) other equally effective measures.

MM 4.1-3: *Provide 50-foot Setback (Impact 4.1-2 – WRSP)*

Agricultural land is located north of the WRSP (Fiddyment Ranch property). Residential uses shall be separated by a minimum 50-foot buffer from living structures on Parcels F-13 and F-14 abutting existing agricultural lands in the northeast corner of the Fiddyment property. The buffer could include roads, landscape corridors, and rear yard setbacks.

MM 4.1-4: *Provide Conservation Easement (Impact 4.1-4 – WRSP)*

The development in the WRSP Area shall minimize loss of agricultural land. This shall be achieved through off-site acquisition of conservation easement(s) prior to approval of the 500th building permit.

4.2 POPULATION, EMPLOYMENT, AND HOUSING

4.2.1 Introduction

This section describes the anticipated changes in population, employment, and housing, including the jobs-to-housing balance and affordable housing, resulting from development of the proposed project. Impacts associated with growth inducement are discussed in Chapter 5, CEQA Considerations.

For this section, the following documents were reviewed:

- *Draft West Roseville Specific Plan*, September 2003
- *MuniFinancial 2020 Citywide Development Projections with Proposed West Roseville Specific Plan*, November 2001
- *Sacramento Area Council of Governments Final Regional Housing Needs Plan for the Sacramento Area Council of Governments (SACOG) Region*, 2001

All of these documents are available for review at the City's Permit Center, 311 Vernon Street, Roseville, California.

As stated in the NOP, the SOI Amendment Area is primarily undeveloped. However, up to six residences could be displaced by development. Two issues were raised during the NOP Scoping Session. One comment favored the inclusion of affordable housing in the WRSP Area and another expressed concern over the amount of office and employment opportunities. Both affordable housing and employment opportunities are discussed in this section. There were no NOP comment letters received regarding population, employment, and housing.

As indicated in Chapter 1, Introduction, a program-level analysis of the entire SOI Amendment Area is only required for the Air Quality, Noise, and Transportation and Circulation sections. As a Sphere Amendment is the only action proposed for the Remainder Area, this section evaluates the impacts of the WRSP relative to population, employment, and housing at a project-specific level and the Remainder Area at a program level. In order to conduct the analysis, development assumptions are made for the Remainder Area (see Chapter 2, Project Description, for details). Figure 1-1 (SOI Amendment Area) in Chapter 1 (Introduction) identifies the boundaries of the WRSP Area and Remainder Area (comprising the total SOI Amendment Area).

As discussed in Chapter 4 (Environmental Analysis), minor changes have been made to the proposed land uses for the WRSP since the NOP was published. The number of dwelling units remains the same, however, so the anticipated number of residents and amount of affordable housing were unaffected. The

acreage designated for commercial uses was reduced from 88.1 to 47 acres (a 53 percent reduction). The mix of industrial and light industrial uses also was reduced by two acres. The changes in commercial and industrial land use would reduce employment opportunities in the WRSP area compared to the project proposed in the NOP. The Remainder Area is unchanged. As discussed under Impact 4.2-1, the resulting employment level would still result in a less-than-significant impact on the City's jobs/housing balance.

4.2.2 Environmental Setting

Population

Regional Population

Placer County, (with El Dorado, Sacramento, and Yolo counties), comprise the Sacramento-Yolo Metropolitan Statistical Area (MSA). One of the most rapidly growing in the state, the population in the MSA grew 15.5 percent in 10 years, from 1.5 million people in 1990 to 1.7 million people in 1999.[37] Current trends in population growth are expected to continue, with the MSA population reaching 2,583,931 persons by 2020 (see Table 4.2-1).

Table 4.2-1 Population Projections

Location	For July 1			Increase by Period		
	2000 (actual)	2010	2020	2000–2010	2010–2020	2000–2020
Sacramento Region[1]	1,801,661	2,239,307	2,583,931	437,646	344,624	782,270
Placer County[1]	248,399	345,046	400,298	114,991	55,252	170,243
Roseville	79,921	113,285	129,259	37,887	16,674	54,561

NOTES:

Region and County projections form SACOG. Roseville projection prepared by MuniFinancial based on dwelling unit projection, six percent vacancy rate, and 2.53 persons per household estimated by DOF for 2000, and 2.48 and 2.50 persons per household estimated by SACOG for 2010 and 2020, respectively.

1. Excludes the Tahoe basin in Placer and El Dorado counties. Estimated population in these areas in 2000 is 32,000 and 10,200 for El Dorado and Placer County, respectively.

SOURCE: MuniFinancial, 2020 Development Projections for the City of Roseville, February 7, 2001; MuniFinancial, 2020 Citywide Development Projections with Proposed West Roseville Memorandum of Understanding Area, November 9, 2001.

Placer County, in particular, has experienced a period of rapid growth. Between 1990 and 2000, Placer County grew from 172,796 to 248,399 people, an increase of 75,603 residents, or 44 percent,[38] with the south Placer cities of Rocklin, Roseville, and Lincoln experiencing the most substantial growth.[39] According to the 2000 Census, Placer County's population increased 112 percent for the period 1980 to

[37] Population Estimates Program, Population Division, U.S. Census Bureau, Washington, DC 20233 as found on the U.S. Census Bureau website, http://eire.census.gov/popest/archives/metro/ma99-01.txt, accessed August 4, 2002.

[38] U.S. Census Bureau website, American FactFinder, http://factfinder.census.gov/servlet/BasicFactsServlet?_lang=en, accessed August 4, 2002.

[39] Employment Development Department Labor Market Information website, Placer County Snapshot, http://www.calmis.ca.gov/file/COsnaps/placesnap.pdf, accessed August 4, 2002.

2000[40]. Population projections estimate Placer County will be home to more than 400,000 by the year 2020, an increase of 64 percent over current figures.[41]

City of Roseville Population

From 1990 to 2000, the City of Roseville's population increased from 44,685 to 79,921, an addition of 35,236 persons or 79 percent.[42] Roseville's share of Placer County's total population also grew, increasing from 27 to 32 percent. By 2020, the City's population (without SOI Amendment) is estimated to reach 129,259 (see Table 4.2-1). As of January 1, 2003, the City's official population was 90,739, a growth rate of 13.5 percent from 2000 to 2003.[43]

Employment

Regional Employment

The Sacramento MSA economy underwent a significant expansion during the 1990s, as non-agricultural employment continued to grow throughout the region, including: educational; health and social services; retail trade; professional; scientific; management and administrative; and manufacturing.[44] Services, retail trade, government, and wholesale trade all increased to meet the needs of the region's expanding population base. Placer County shared in the region's economic expansion with its own rapid growth.

Placer County's economy is evolving from its traditional dependence on the railroad industry, the lumber and wood products industry, and agriculture. As noted by the State of California Employment Development Department, the County's substantial population growth has increased consumer demand and the number of jobs in retail, service, and construction.[45] In 2000, Placer County had a total labor force of approximately 123,875, of which 5,228, or approximately four percent, were unemployed (see Table 4.2-2).[46]

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[40] U.S. Census Bureau website, American FactFinder, http://factfinder.census.gov/servlet/BasicFactsServlet?_lang=en, accessed June 2, 2002.
[41] Employment Development Department Labor Market Information website, Placer County Snapshot, http://www.calmis.ca.gov/file/COsnaps/placesnap.pdf, accessed August 4, 2002.
[42] U.S. Census Bureau website, American FactFinder, http://factfinder.census.gov/servlet/GCTTable?ds_name=DEC_2000_SF1_U&geo_id=04000US06&_box_head_nbr=GCT-PH1&format=ST-7, accessed August 4, 2002.
[43] Email from Julia Burrows, City of Roseville, May 13, 2003.
[44] U.S. Census Bureau website, American FactFinder, http://censtats.census.gov/data/CA/05006061.pdf, accessed August 4, 2002.
[45] City of Roseville, North Roseville Specific Plan Draft EIR, page 4.2-3.
[46] U.S. Census Bureau website, American FactFinder, http://censtats.census.gov/data/CA/05006061.pdf, accessed August 4, 2002.

Table 4.2-2 Employment Placer County and City of Roseville 1990 and 2020

Location	Labor Force			Employed			Unemployment Rate		
	1990	2000	2020 (Projected)	1990	2000	2020	1990	2000	2020
Placer County	87,450	123,875	211,468	82,920	118,647	N/A	5.2	4.2	N/A
City of Roseville	23,043	38,908	109,231	21,763	37,256	N/A	5.6	3.9	N/A
City as Percent of County	26.3	31.4	51.7	26.2	31.4	N/A	—	—	N/A

SOURCE: U.S. Census Bureau website, American FactFinder, http://factfinder.census.gov/servlet/QTTable?_ts=48181557950, accessed August 4, 2002. U.S Census Bureau website, American FactFinder, http://factfinder.census.gov/servlet/QTTable?_ts=48181469960, accessed August 23, 2002.
Sacramento Area Council of Governments (SACOG) website, http://www.sacog.org/demographics/proj2001/pdf/cities/plac.pdf, accessed March 27, 2003.

Employment levels in Placer County are estimated to reach 211,468 by 2020.[47]

City of Roseville Employment

With approximately 37,000 jobs in 2000, Roseville employment represented 31.4 percent of Placer County's total employment (118,647). Approximately 40 percent of Roseville's employment was in the commercial sector, followed by 30 percent in the office sector and 28 percent in the industrial sector. Unemployment was approximately four percent in 2000.[48] As of January 1, 2003,[49] there were approximately 64,000 jobs in Roseville, representing an increase of 25,902 jobs in three years.

Douglas Boulevard, the I-80 corridor, and the North Industrial Area are the City's major employment centers. With new development in portions of the North Industrial Area and commercial/retail/office development in other specific plan areas, employment opportunities have become more widely distributed within the City of Roseville. By 2020, the City employment levels are estimated to reach 98,900 jobs.[50] Assuming 1.26 workers per household, there would be approximately 63,605 employable residents in 2020 (based on 2020 projected dwelling units of 50,480).

[47] Sacramento Area Council of Governments (SACOG) website: http://www.sacog.org/demographics/proj2001/pdf/cities/plac.pdf, accessed March 27, 2003.
[48] U.S. Census Bureau website, American Fact Finder, http://census.gov/data/CA, accessed August 4, 2002.
[49] City of Roseville Quarterly Development Report, July 2003
[50] DKS Associates; based on an average of 500 square feet per employee for all employment-generating uses.

Housing

Housing Supply

Region and Placer County

In 2000, the housing supply in Placer County was 107,302 dwelling units.[51] This represents a 73 percent increase over the 1990 housing supply. Nearly 80 percent of the units were single-family residences.[52] Table 4.2-3 shows the housing types as of 2000 and Table 4.2-4 illustrates the change in housing characteristics for the years 1990 and 2000.

Table 4.2-3 Housing Types, Placer County, and City of Roseville Year 2000

Location	Single Family	Multiple Family	% Single Family	% Multiple Family
Placer County	85,596	21,706	79.8	20.2
City of Roseville	24,777	7,203	77.5	22.5
City as % of County	28.9	33.2	N/A	N/A

SOURCE: U.S. Department of Commerce, Bureau of the Census, 2000 Census of Population and Housing; City of Roseville, 2000.

Table 4.2-4 Housing Characteristics, Placer County, and City of Roseville Years 1990 through 2020

Location	Total Units, 1990	Total Units, 2000	% Change, 1990–2000	Median Value, 1990	Median Value, 2000	% Change 1990-2000	Vacancy Rate, 1990	Vacancy Rate, 2000	Total Units, 2020	% Change, 2000–2020
Placer County	77,879	107,302	37.8	$168,500	$213,900	26.9	17.7	13.0	167,106	55.7
City of Roseville	17,789	31,980	79.8	$158,000	$194,900	23.4	6.7	4.5	50,480	57.8
City as % of County	22.8	29.8	N/A	93.8	91.1	N/A	N/A	N/A	30.2	N/A

SOURCE: U.S. Department of Commerce, Bureau of the Census, 2000 Census of Population and Housing; City of Roseville, 2000. Sacramento Area Council of Governments (SACOG) website, http://www.sacog.org/demographics/proj2001/pdf/rads/hsg.pdf, accessed March 27, 2003, DKS Associates, 2002.

In 1990, the housing vacancy rate in all of Placer County was 17.7 percent, which declined to 13 percent in 2000.[53] These vacancy rates reflect the large number of vacation homes in the Lake Tahoe area. In 2000, the City of Roseville had a homeowner vacancy rate of 1.7 percent, and a rental vacancy rate of 4.5 percent.[54] Placer County is projected to have 167,106 housing units in 2020.[55]

[51] U.S. Census Bureau website, American FactFinder, http://censtats.census.gov/data/CA/05006061.pdf, accessed August 4, 2002.
[52] U.S. Census Bureau website, American FactFinder, http://censtats.census.gov/data/CA/05006061.pdf, accessed August 4, 2002.
[53] U.S. Census Bureau website, American FactFinder, http://censtats.census.gov/data/CA/1600662938.pdf, accessed August 4, 2002.
[54] U.S. Census Bureau website, American FactFinder, http://censtats.census.gov/data/CA/1600662938.pdf, accessed August 4, 2002.

City of Roseville

In 1996, there were 25,257 dwelling units in the City of Roseville. By 2000, the number of dwelling units increased to 31,980 units (see Table 4.2-5), an increase of almost 27 percent over four years. The General Plan land use allocation provides for a total of 47,500 dwelling units.[56] This includes approximately 1,000 units that are not allocated to specific geographic locations, and that have been specifically reserved for use by the City in certain housing programs, such as density bonuses and other development incentives. However, the available unbuilt housing pool is currently approximately 348 units.[57] Based on City growth projections, it is expected that the current residential land use allocation will be exhausted between the years 2005 and 2007.[58]

Table 4.2-5 City of Roseville Dwelling Units (as of April 2000)

Residential Type	Number of Units	Percentage of Total
Single Family	24,777	77.5
Multi-Family	6,659	20.8
Other (mobile homes, group quarters, etc.)	544	1.7
Total	31,980	100

SOURCE: U.S. Department of Commerce, Bureau of the Census, 2000 Census of Population and Housing; City of Roseville, 2000.

As of January 2000, occupancy permits had been granted for 31,205 units.[59] This is nearly triple the 10,267 units estimated in 1980 by the U.S. Census. According to the City of Roseville, the average household size in 2000 was 2.53 persons per household.[60]

More than three quarters of the dwelling units in the City are single-family residential homes (24,777 units). However, multi-family residential construction has increased substantially. Multi-family units have risen from 13 percent of the available housing stock in 1980 to 22.5 percent of the total housing stock (7,203 units) in 2000. Between 1980 and 2000, residential growth has occurred at an annual rate of 5.9 percent.

By 2020, housing levels in the City are estimated to grow to 50,480 dwelling units.[61]

[55] Sacramento Area Council of Governments (SACOG) website, http://www.sacog.org/demographics/proj2001
[56] Kathy Pease, City of Roseville, written communication, August 28, 2002.
[57] Kathy Pease, City of Roseville, written communication, August 28, 2002.
[58] Jan Shonkwiler, City of Roseville, written communication, August 28, 2002.
[59] Jan Shonkwiler, City of Roseville, written communication, August 28, 2002.
[60] Bob Spencer, MuniFinancial, written communication, August 22, 2002.
[61] DKS Associates, 2002.

Housing Affordability

Housing affordability refers to the relationship between total household income and total household expenditures for housing, including mortgage, taxes, insurance, and utilities. This relationship is typically expressed as the percentage of total household income allocated to housing expenditures. Table 4.2-6 shows the City of Roseville's definitions to describe household affordability by income group.

In 2002, the median housing price for existing single-family homes in Roseville was $235,500. This is an increase of 49 percent from $158,000 in 1990.

Table 4.2-6 Definition of Household Income Categories

Income Category	Household Income Range
Very Low Income	Below and including 50% of Median Income
Low Income	51% to 80% of Median Income
Middle Income	80% to 100% of Median Income
Moderate Income	100% to 120% of Median Income
Above Moderate	Over 120% of Median Income

SOURCE: City of Roseville General Plan, 1992.

In order to address the need for affordable housing, a Regional Housing Needs Allocation Plan (RHNAP) was developed by SACOG. This plan allocates a fair share of housing needs to each local jurisdiction for a five-year period. The current allocation is for the period 2000-2007.

SACOG has allocated the Regional Fair Share Housing Needs for the City of Roseville. Table 4.2-7 indicates the division of the allocation by income group. Roseville's share indicates the need to provide a total of 11,400 affordable housing units from 2000 through 2007,[62] approximately 24 percent of the City's General Plan's dwelling unit allocation. These units are further divided into 2,994 units for very low income, 2,053 for low income, 2,328 for middle income, and 4,025 for moderate and above moderate-income households.[63] SACOG defines household income categories slightly differently from the City of Roseville (see Table 4.2-8). In the City of Roseville, a family of four with a yearly income of $29,900 or less is considered very low income, and a family earning $47,850 a year is low income.[64]

[62] Sacramento Area Council of Governments, Final Regional Housing Needs Plan for the SACOG Region, September 20, 2001, SACOG website http://www.sacog.org/rhnp/rhnp.pdf accessed August 4, 2002.

[63] Sacramento Area Council of Governments, Final Regional Housing Needs Plan for the SACOG Region, September 20, 2001, SACOG website http://www.sacog.org/rhnp/rhnp.pdf accessed August 4, 2002.

[64] John Sprague, City of Roseville Economic Community Service Director, written communication, July 15, 2003.

Table 4.2-7 City of Roseville Regional Fair Share of Affordable Housing

Income Group	Definition	Percentage	Number of Dwelling Units
Very Low	Less than and including 50% of Median	26.26	2,994
Low	51% to and including 80% of Median	18.01	2,053
Middle	80% to 100% of Median	20.42	2,328
Moderate and Above Moderate	100% to 120+% of Median	35.31	4,025
Total		100	11,400

SOURCE: Sacramento Area Council of Governments, Final Regional Housing Needs Plan for the SACOG Region, September 20, 2001.

Table 4.2-8 Household Income Categories Definition Equivalencies

City of Roseville	SACOG
Very Low Income	Very Low Income
Low Income	Low or Lower Income
Middle Income	Moderate Income
Moderate Income	Moderate Income
Above Moderate Income	Above Moderate Income

Similar to most jurisdictions in California, Roseville has encountered challenges in meeting past affordable housing objectives. The General Plan Housing Element has established goals and policies designed to encourage the construction of affordable housing. These include working with the development and business communities to provide affordable rental and purchase opportunities, requiring 10 percent of new housing units to be affordable, and continuing to participate in State and federal programs.[65] However, the Housing Element concludes:

> Unless the funding for existing federal, State, and local programs is expanded significantly and new programs are established, the City will be unable to meet its total affordable housing needs.

The City's 10 percent affordable housing goal for new units is anticipated to be an achievable goal, but it is recognized that it may not meet the SACOG affordable housing need allocation. Although a higher goal was considered by the City, it was believed to be preferable to set a realistic goal rather than one that cannot be met.

[65] City of Roseville General Plan, Housing Affordable Goal; Affordable Housing Policy HB-3.

Since 1988, Roseville has had a 10 percent affordable housing requirement for all new developments, a quarter of which are for middle-income households. Of the 22,000 new residential housing units built in Roseville since 1988, 1,700 are affordable and the City has plans to build 500 more units.[66]

Between 1990 and 2000, the City has constructed 25 percent of the region's low-income and very low-income housing.

The intent of the 10 percent affordable housing goal is to provide a mechanism whereby the City property owners and the business community can actively work together in developing affordable housing for very low-, low-, and middle-income households. The City's affordable housing goal is not intended to be used as an inclusionary zoning program, whereby the property owners would be required to shoulder the entire responsibility of producing the affordable housing.

In the past, the 10 percent affordable housing goal has been calculated for each specific plan area based on the total residential units allocated to each area. This practice will be continued with each future specific plan area or areas receiving new residential land use entitlement. Each plan will be required to include a strategy defining how it can best meet the 10 percent goal and identifying the specific parcels are best suited for development of affordable housing.

The City and property owner are responsible for assembling the necessary subsidy packages for affordable housing, and for making a good faith effort to produce affordable units within the residential projects. The 10 percent affordable housing goal is intended to be flexible in recognition that the actual number of affordable units constructed depends on the level of government funding. As the City applies its affordable housing goal to new residential construction, the percentage and number of affordable units produced may be less than the maximum 10 percent goal, depending on subsidies which can be assembled at any given point in time.

The City Council recently adopted its 2002–2007 Housing Element, which carries forward the previous policies addressing affordable housing and includes the 10 percent Affordable Housing Goal. The State Department of Housing and Community Development found the City's Housing Element in substantial compliance with State law. However, the 2002–2007 Housing Element contains a caveat which states, "…the City will consider alternatives to achieving affordable housing within newly annexed areas should conditions or legislation require the City to alter its approach to affordable housing."

[66] John Sprague, City of Roseville Economic Community Services Director, written communication, July 15, 2003.

Jobs/Housing Balance

The jobs/housing balance refers to the location of residences in relation to the location of employment-generating uses. A well-balanced ratio of jobs and housing is assumed to reduce the number of vehicle trips resulting from commuting, because employment opportunities and commercial services are near residential areas. This reduction in vehicle trips improves air quality. To fully realize the benefits of a jobs/housing balance, the occupations and wages made available by employment opportunities should correspond to the affordability and availability of nearby residences. As a result, jobs/housing balance must take into consideration both the number of units and their affordability.

The State Legislature has declared its intention to move toward the goal that every California worker has available the opportunity to reside close to his or her job site.[67] The City of Roseville has established its support for a jobs/housing balance through General Plan policy LE-1 which states:

> The City shall strive for a land use mix and pattern of development that provides linkages between jobs and employment uses, will provide a reasonable jobs/housing balance, and maintain the fiscal viability of the City.

The City of Roseville, Placer County, and City of Rocklin all adopted similar resolutions regarding the jobs/housing balance in 1983. Roseville's Resolution 83-118 states that a satisfactory jobs/housing balance for the core industrial areas surrounding SR-65 and Washington Boulevard is for 80 percent of the workers to reside within eight miles of their employment and for 60 percent to live within six miles.[68]

As of June 2003, there were 39,199 dwelling units in the City of Roseville.[69] Assuming a worker per household ratio of 1.26, approximately 49,391 workers could be housed within the City.[70] Total year 2000 employment was 64,000 in Roseville.[71] Using the methods presented in Resolution 83-118, 80 percent of the employees in Roseville would be 39,513. The 2003 ratio of jobs to residents is 70.5 jobs per 100 Roseville residents and 129.6 jobs per worker within the City limits. The City is currently approximately 8.3 miles wide, placing at least 80 percent of the residents in the City within an eight-mile radius of a job. Therefore, the housing supply would be available for more than 80 percent of the workers and the current jobs/housing balance is considered numerically acceptable. However, due to the need to match housing costs, income levels, and other housing choice factors, the relationship of housing affordability

[67] State of California, Government Code 65890.1.h.
[68] City of Roseville, North Roseville Specific Plan Draft EIR, page 4.2-4.
[69] City of Roseville Quarterly Development Report, July 2003
[70] Based on 2000 U.S. Census data of 38,908 people in the labor force and 30,783 households in the City of Roseville, there would be 1.26 employees per household.
[71] U.S. Census Bureau website, American FactFinder, http://factfinder.census.gov/bf/-lang=en_vt_name=DEC_2000_SF3_U_DP3_geo_id=16000US0662938.html, accessed January 27, 2003.

to housing supply is extremely complicated and difficult to accurately predict within single jurisdictions or within other sub-areas of the larger regional housing market.

By 2020, housing levels in the City are estimated to grow to 50,480 dwelling units, which would generate approximately 63,605 employees (assuming 1.26 employees per household). With 98,900 jobs in the City, there would be 1.55 jobs for every employed resident, which would exceed the City standard.

It is important to note that the City of Roseville generally imports employees from surrounding areas such as Rocklin, Auburn, and other portions of unincorporated Placer County. However, the City also exports employees to Sacramento-based employment centers, including State offices.

4.2.3 Regulatory Setting

Federal

There are no federal regulations that would apply to the WRSP or Remainder Area.

State

The California State Legislature has declared its intention to support enabling California workers the opportunity to live close to his or her job site (Government Code §65890.1.h). The California Health and Safety Code Division 13, Sections 3341.0 *et seq*. include the Community Redevelopment Law, which regulates redevelopment activities.

Local

Placer County General Plan

Placer County is currently considering an Inclusionary Housing Ordinance to add to Chapter 15, Building and Development, of the Placer County Municipal Code. If adopted, the County would require a minimum of 15 percent of all new residential construction projects include units available for rent or sale to very low–, low- and moderate-income households.

City of Roseville General Plan

The City of Roseville General Plan includes goals and policies for adequate housing stock and employment opportunities. Policy HB-3 requires a 10 percent affordable housing goal be applied to all residential properties planned for four or more units. Please see Appendix C for a complete list of all applicable City goals and policies.

City of Roseville Resolution 83-118

This resolution calls for 80 percent of the workers in the City to reside within 8 miles of their places of employment and for 60 percent to live within 6 miles.

4.2.4 Impacts and Mitigation Measures

Methods of Analysis

The basis for the analysis in this section is existing conditions. For a discussion of cumulative impacts on population, employment, and housing, refer to Chapter 5 (CEQA Considerations).

Population

The increased resident population resulting from the development of the WRSP or Remainder Area is estimated by multiplying the total number of residential units by the average number of residents per dwelling unit (see Table 4.2-9). For this analysis, the average number of residents per housing unit is assumed to be 2.53. For active adult residences, the number of residents per dwelling unit is assumed to be 1.8.

Table 4.2-9 Population

Residential Density Designation	Proposed Acreage		Proposed Units		Population	
	WRSP	Remainder Area	WRSP[1]	Remainder Area	WRSP	Remainder Area
Low-density	1,354.6	1,324.4	4,842	5,296.0	12,250.3	13,398.9
Medium-density	142.9	88.6	1,064	620.0	2,691.9	1,568.6
High-density	109.7	78.2	1,774	1,487.0	4,589.4	3,762.1
Age-restricted housing (Independent Living)	146.9	0.0	710	0.0	1,278.0	0.0
Total	1,754.1	1,491.2	8,390.0	7,403.0	20,809.6	18,729.6

NOTE:
1. High density unit count includes 40 units in the Commercial Mixed-Use land use designation.

SOURCE: EIP Associates 2003

Employment

The additional jobs that could result from the development of the WRSP or Remainder Area are calculated based upon the types of commercial development and the estimated amount of floor area of each commercial development. The assumed floor-to-area ratio (FAR) is 0.30 for business professional/office and 0.20 for commercial/retail and industrial development. The assumed number of employees is[72]

[72] MuniFinancial, 2020 Citywide Development Projections with Proposed West Roseville Specific Plan, November 9, 2001

- Commercial: 350 square feet per employee
- Office/Business Park: 275 square feet per employee
- Industrial: 600 square feet per employee

Table 4.2-10 shows the estimated number of employees.

Housing

The number of residential units identified in the WRSP and assumed for the Remainder Area is presented and considers the direct increase in housing supply available to the City of Roseville. The analysis discusses affordability of the City's housing supply and compares the affordable housing provided in the WRSP and Remainder Areas. The impact discussion also includes an analysis of the percentage of workers residing within City-prescribed radii.

Table 4.2-10 Employment Generation[1]

Land Use Type	Acres	Floor-to-Area Ratio (FAR)	Total Building Area (sf)	Employment Density (sf per employee)	Employees by Land Use
Commercial					
WRSP Area	49	0.2	426,890	350	1,220
Remainder Area	67.6		588,933		1,683
Business Professional					
WRSP Area	19.6	0.3	256,134	275	931
Remainder Area	49.5		646,869		2,352
Industrial					
WRSP Area	108.5	0.2	945,256	600	1,575
Remainder Area	0		0		0
WRSP Area Total	**177.1**				**3,726**
Remainder Area Total	**117.1**				**4,035**
				SOI Amendment Area Total Employment	***7,761***

NOTE:
1. Employment estimates contained in this table represent maximum employment at buildout of the land uses within the Plan Area.

SOURCE: EIP Associates 2003

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area could do any of the following:

- Exacerbate an imbalance in the City's jobs to housing ratio
- Provide less than 10 percent of affordable housing units within the plan area

- Result in the displacement of a significant number of existing housing, necessitating the construction of replacement housing elsewhere
- Induce substantial population growth in an area either directly or indirectly
- Allow development that would be inconsistent with adopted City policies

Impacts

IMPACT 4.2-1:	CHANGES IN JOBS/HOUSING BALANCE.	
Applicable Policies and Regulations:	City of Roseville Resolution 83-118	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None required	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant

The City of Roseville Resolution 83-118 establishes a formula for determining the jobs/housing balance. Resolution 83-118 states that a satisfactory jobs/housing balance is for 80 percent of the workers to reside within eight miles of their place of employment and for 60 percent to live within 6 miles. Since the location of each resident's employment cannot be determined, this analysis evaluates whether the number of jobs available within eight miles (or six) of the proposed WRSP or Remainder Area is equal to or greater than 80 percent (or 60 percent) of the number of employed residents within the proposed WRSP and Remainder Areas.

In order to be consistent with City Resolution 83-118, there must be enough jobs within eight miles of the proposed WRSP and Remainder Areas to accommodate 80 percent of the workers in the area, and 60 percent within six miles. Because the City is approximately 8.3 miles wide, if there are enough jobs within the City to accommodate 80 percent of the City's employed population, the standard would be satisfied. This approach is conservative, because there are a number of employment centers within six or eight miles of the City but outside the City limits, including the SR-65 corridor.

The number of employees living in Roseville in 2000 was 38,908 (refer to Table 4.2-11).[73,74] The number of jobs in Roseville in 2003 was 64,000, with a population of 90,739. Therefore, in 2003, there were approximately 71 jobs per 100 Roseville residents within the City limits for a jobs/housing ratio of 0.71.

[73] U.S. Census Bureau website, American FactFinder, http://censtats.census.gov/data/CA/1600662938.pdf, accessed August 4, 2002.
[74] 2000 Census data was used for this analysis because it is the most current, complete information available.

Citywide, with buildout of the proposed WRSP and Remainder Areas, there would be a total of 58,858 employees and 44,761 jobs, or approximately 76 jobs per 100 resident employees.

Table 4.2-11 Jobs/Housing Balance in the City of Roseville

	Citywide Existing (2000)	Citywide 2020	WRSP	2020 with WRSP	Remainder Area	2020 with Project
Dwelling Units	31,925	50,480	8,430	58,910	7,403	66,313
Employees	38,908	63,605	10,622	74,227	9,328	83,555
Jobs	37,256	98,900	3,727	102,627	4,035	106,662
Percentage (Jobs/Employee)[1]	95.75%	155.49%	35.09%	138.26%	43.26%	127.65%

NOTE:

1. Includes the percentage of jobs per employee, with 100% meaning that there is one job for each employee within the Roseville City Limits. Existing uses 2000 Census data, which is the most current and accurate information available. While the percentages may not be equal to 80 percent, indicating that the jobs/housing goal of 80 percent of employees live within eight miles of a job, there are several employment centers outside the City of Roseville that are within eight miles of the project site.

SOURCE: U.S. Census Bureau 2000; EIP Associates 2003

The proposed WRSP Area and Remainder Areas would take a number of years to build out. Therefore, the jobs/housing ratio must also be considered in the context of other development within the City. The change in the jobs/housing balance would depend on the type of developments approved and the timing of residential versus non-residential development. Short-term imbalances could occur, particularly if commercial and industrial uses do not develop as quickly as residential uses, which may be likely.

West Roseville Specific Plan

The WRSP includes commercial, business professional, and light industrial land use designations. The development of these uses is anticipated to increase employment within the WRSP project area. Overall, however, the WRSP Area is projected to add more housing than jobs. This absorption scenario will cause a decrease in the City's overall jobs/housing ratio.[75]

At buildout of the WRSP Area, there would be 426,890 square feet of commercial space, 256,134 square feet of office, and 945,256 square feet of industrial development (refer to Table 4.2-10). Based on these square footages, a total of 3,727 jobs would be created through development of the WRSP Area, including approximately 1,220 commercial jobs, 931 office jobs, and 1,575 industrial jobs (refer to Table 4.2-10). Assuming a ratio of 1.26 employees per household in the City of Roseville,[76] the 8,430 units in the WRSP Area would generate approximately 10,622 employees.

[75] MuniFinancial, *2020 City-wide Development Projections with Proposed West Roseville Specific Plan*, November 9, 2001.

[76] Based on 2000 U.S. Census data of 38,908 people in the labor force and 30,783 households in the City of Roseville, there would be 1.26 employees per household.

If the WRSP were to build out under existing conditions, there would be a total of 40,983 jobs[77] in the City, for 49,530[78] resident employees citywide, resulting in a ratio of at least 82.7 jobs per 100 employed City residents

With development of the WRSP Area, there would be approximately 102,627 jobs and 74,227 employees in the City of Roseville by 2020, resulting in 1.38 jobs for every employable resident in the City of Roseville. Consequently, greater than 80 percent of City residents would be within 8 miles of a job, and more than 60 percent within six miles of a job. In 2020, with development of the WRSP, the ratio of jobs to employees would improve to 1.38, compared to the "without project" ratio of 1.55.

Because over 80 percent of residents of the WRSP Area would live within eight miles of employment, and 60 percent would live within six miles, this impact is considered **less than significant**.

Remainder Area

If the Remainder Area were developed at levels similar to those proposed in the WRSP, at buildout there would be 588,933 square feet of commercial and 646,869 square feet of office and/or industrial development in the Remainder Area (refer to Table 4.2-10). Based on the square footages, a total of approximately 4,035 jobs would be created in the Remainder Area, including 1,683 commercial jobs, and 2,352 office jobs. Assuming a ratio of 1.26 employees per household, the 7,403 units in the Remainder Area would generate approximately 9,328 employees, resulting in 43 jobs for every 100 residents within the Remainder Area. Because the Remainder Area would not likely develop before the WRSP, no separate Citywide jobs/housing balance is evaluated. The jobs/housing balance for the proposed WRSP and Remainder Areas would comply with Resolution 83-118, so the impact is considered **less than significant**.

IMPACT 4.2-2:	PROVISION OF AFFORDABLE HOUSING.	
Applicable Policies and Regulations:	City of Roseville General Plan Policy HB-3	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Significant
Mitigation Measures:	None required	MM 4.2-1 (Affordable housing program)
Significance after Mitigation:	Less Than Significant	Less Than Significant

[77] Based on 2000 U.S. Census data indicating there were 37,256 jobs in the City, plus 3,511 jobs created by the WRSP.
[78] Based on 2000 U.S. Census data indicating there were38,908 employees in the City, plus 10,622 employees created by the WRSP.

West Roseville Specific Plan

The City requires that 10 percent of all new housing built in the City be affordable housing. The SOI Amendment Area would include 15,833 dwelling units; in order to meet the City's requirement, 1,583 (10 percent) of those units would have to be affordable. The WRSP would add 8,430 dwelling units to the City. Of the total units in the WRSP plan area, 1774 units, or 21 percent of the total inventory, are multi-family, high-density units. The City requires that 10 percent of all new housing built in the City be affordable housing. As discussed in the Setting, the Regional Housing Needs Plan (2001), however, requires that a higher percentage (34 percent) of units be set aside for affordable housing.[79] The City did not adopt this standard, and is not obligated by law to enforce it. Ten percent of the proposed dwelling units would be 843. The WRSP would comply with the General Plan Housing Element by designating 10 percent of the total WRSP housing stock for participation in the affordable housing program defined in this section. Twenty percent of affordable housing requirements would be met through purchase housing affordable to middle-income residents (168 units).[80] Eighty percent would consist of rental units for very low- and low-income households (338 low income and 337 very low income, or 40 percent each).[81] Affordable dwelling units would be dispersed throughout neighborhoods; as described in Table 4.2-12 and illustrated on Figure 4.2-1 (West Roseville Specific Plan Affordable Housing Distribution), in order to achieve a distribution throughout the WRSP.[82]

The WRSP would make 337 dwelling units, or 4 percent of the total number of residential units, available for rental by very low-income households.[83] In addition, the WRSP would make 338 dwelling units, or 4 percent of the total number of residential units, available as rental housing for low-income households.[84] To meet the median income affordable housing requirements, the WRSP would make 168 dwelling units, or 2 percent of all housing, available for purchase for middle-income households.[85] The total number of WRSP affordable units would be 843, or 10 percent of the total number of dwelling units. Because the number of affordable housing units would be 10 percent of the total number of housing units developed, the impact would be **less than significant**.

[79] Draft West Roseville Specific Plan, Housing Section, September 2003.
[80] Draft West Roseville Specific Plan, Housing Section, September 2003.
[81] Draft West Roseville Specific Plan, Housing Section, September 2003.
[82] Draft West Roseville Specific Plan, Housing Section, September 2003.
[83] Draft West Roseville Specific Plan, Housing Section, September 2003
[84] Draft West Roseville Specific Plan, Housing Section, September 2003
[85] Draft West Roseville Specific Plan, Housing Section, September 2003

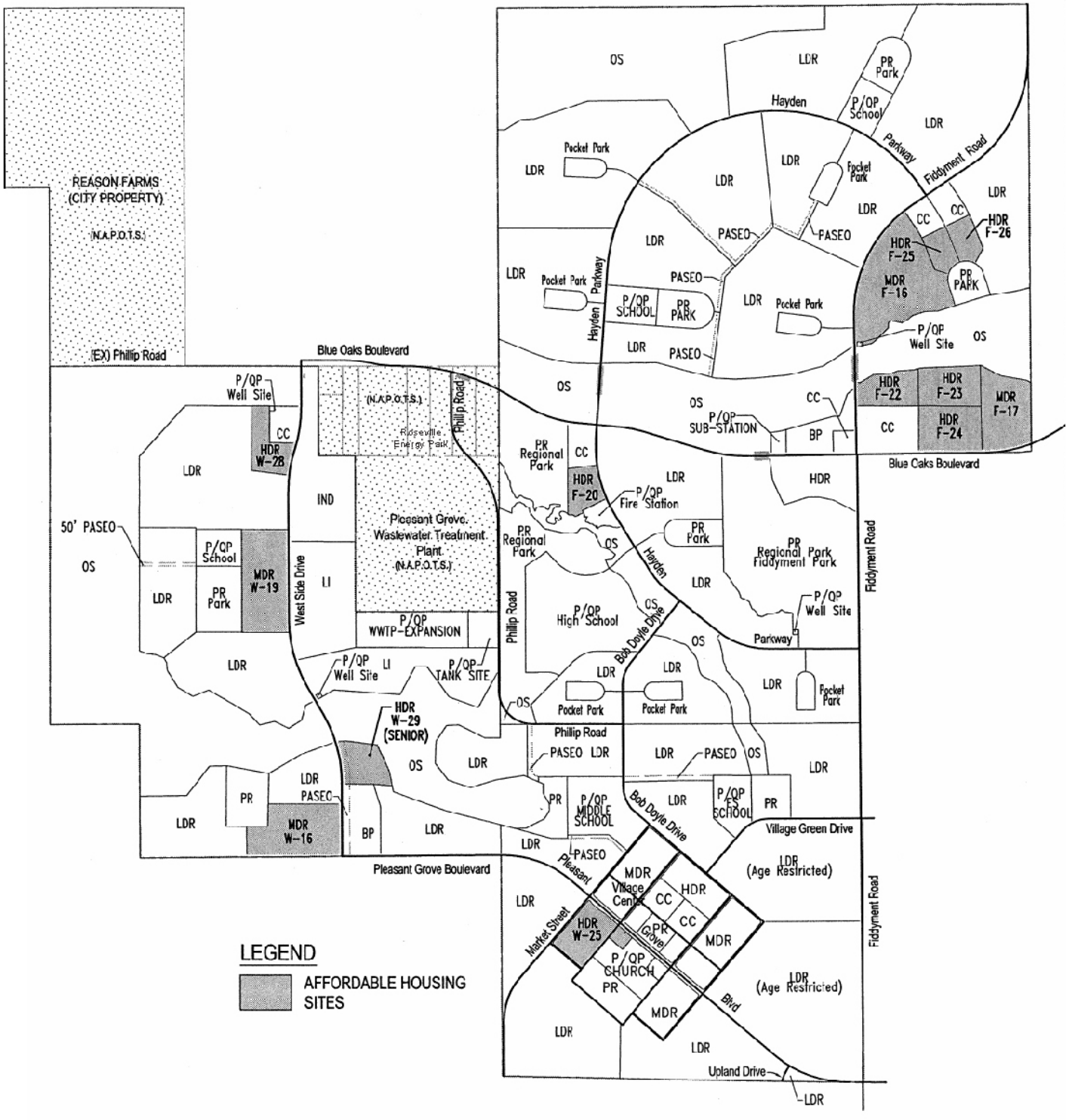


FIGURE **4.2-1**

West Roseville Specific Plan Affordable Housing Distribution

Not to Scale

10659-00

Source: West Roseville Specific Plan 2003

City of Roseville

EIP ASSOCIATES

Table 4.2-12 Affordable Housing Allocation

Parcel	Land Use	Total Units in Parcel	Total Affordable Allocation	Very Low- income Rental	Low-Income Rental	Middle- Income Purchase
W-16	MDR	160	42	0	0	42
W-19	MDR	165	43	0	0	43
W-25	HDR	240	144	72	72	0
W-28	HDR	175	47	23	24	0
W-29[1]	HDR	150	150	75	75	0
		Subtotal	**426**	**170**	**171**	**85**
F-16	MDR	224	46	0	0	46
F-17	MDR	174	37	0	0	37
F-20	HDR	136	68	27	41	0
F-22	HDR	110	44	22	22	0
F-23	HDR	160	96	32	64	0
F-24	HDR	200	86	46	40	0
F-25	HDR	100	20	20	0	0
F-26	HDR	98	20	20	0	0
		Subtotal	**417**	**167**	**167**	**83**
		Total	***843***	***337***	***338***	***168***

NOTE:
1. Senior housing.
SOURCE: West Roseville Specific Plan, page 5-3, 2003

It should be noted that the County requires that 10 percent of new housing projects with over 100 units be affordable to low income households. Only eight percent of the WRSP would be affordable to low income households. In addition, the County is considering an Inclusionary Housing Ordinance to add to Chapter 15, Building and Development, of the Placer County Municipal Code. If adopted, the County would require that a minimum of fifteen percent of all new residential construction projects include units available for rent or sale to very low-, low- and moderate-income households.

Remainder Area

The Remainder Area would add 7,403 housing units to the City. Ten percent of the proposed dwelling units for the Remainder Area would equal 740. No development plans have been proposed for the Remainder Area, so the number of affordable units that would be provided is not known. This could be a significant impact. MM 4.2-1 requires that development in the Remainder Area comply with the General Plan Housing Element by designating 10 percent of the total Remainder Area housing stock for participation in the affordable housing program, as defined in this section. Implementation of MM 4.2-1 would reduce the impact to a **less-than-significant** level.

IMPACT 4.2-3:	DISPLACEMENT OF EXISTING HOUSING.	
Applicable Policies and Regulations:	California Health and Safety Code Sections 33410 *et seq.* (Community Redevelopment Law)	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	MM 4.2-2 (Relocation Assistance)	MM 4.2-2 (Relocation Assistance)
Significance after Mitigation:	Less Than Significant	Less Than Significant

West Roseville Specific Plan/Remainder Area

A few existed residences in the WRSP and Remainder Areas would be displaced by proposed development. Health and Safety Code Sections 33410 *et seq.* provides that the applicable redevelopment agency prepare a feasible plan for relocation of families displaced from housing as a result of redevelopment activities. If the persons to be displaced are of low or moderate income, replacement housing must be provided at comparable rents. In addition, since a portion of the housing in the WRSP area would be affordable, that housing must be made available for rent or purchase to the persons of low or moderate income displaced by the redevelopment project. The number of persons who could be potentially displaced by the proposed development is extremely small. As affordable housing would be provided in the WRSP and Remainder Areas, which would be available to any displaced persons, this impact would be **less than significant**. Implementation of MM 4.2-2 would further reduce the significance of this impact through relocation assistance mechanisms for any displaced persons.

IMPACT 4.2-4:	INDUCEMENT OF SUBSTANTIAL POPULATION GROWTH.	
Applicable Policies and Regulations:	None	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	None Available	None Available
Significance after Mitigation:	Significant and Unavoidable	Significant and Unavoidable

West Roseville Specific Plan/Remainder Area

The proposed project includes 8,430 homes in the WRSP Area and 7,403 dwelling units in the Remainder Area (based on Remainder Area Assumptions set forth in Chapter 2, Project Description, which assume a similar mix of uses in the Remainder Area as the WRSP). A total of 15,833 dwelling units in the SOI

Amendment Area would generate an additional 39,539.2 persons (see Table 4.2-9). This represents a 43.6 percent increase in population due to the proposed WRSP and Remainder Area development. Based on an average growth rate of 6.02 percent per year between 1990 and 2002, an increase of 43.6 percent would be considered significant. The inclusion of commercial and industrial uses in the WRSP and Remainder Areas would result in generation of an additional 7,761 jobs. While most of these jobs would be held by City of Roseville residents, it would be anticipated some workers would be drawn from work forces outside the City of Roseville.

Regardless of whether or not workers commute to the City or whether current Roseville residents occupy the new jobs created in the SOI Amendment Area population growth would be significant. Therefore, this would be a **significant and unavoidable** impact.

IMPACT 4.2-5:	CONSISTENCY WITH ADOPTED CITY POLICIES.	
Applicable Policies and Regulations:	City of Roseville General Plan Policy HB-3 City of Roseville Resolution 83-118	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

West Roseville Specific Plan/Remainder Area

As noted previously, City of Roseville General Plan Policy HB-3 requires that 10 percent of all new housing built in the City be affordable: As the WRSP and Remainder Area would provide a total of 15,833 dwelling units, 1,583 would be required to be designated as affordable. In the WRSP Area, a total of 843 units are allocated for affordable housing, which meets the 10 percent affordable housing goal as noted in Impact 4.2-2. For the Remainder Area, MM 4.2-1 requires that development include 10 percent affordable housing in compliance with this General Plan Policy.

City Resolution 83-118 requires that 80 percent of workers reside within eight miles of their place of employment and 60 percent live within six miles, as discussed in Impact 4.2-1. It has been determined that development of the WRSP and Remainder Areas would meet this goal, and would, therefore, be consistent with the Resolution.

Development in the WRSP that would require relocation of existing residences would comply with California Health and Safety Code Sections 33410, *et seq.*, which provides for relocation assistance to

persons displaced by redevelopment activities. As development of the WRSP and Remainder Areas would be consistent with the City's General Plan Policy HD-3 and City Resolution 83-118, this impact would be **less than significant**.

Mitigation Measures

MM 4.2-1: *Affordable Housing Program (Impact 4.2-2 – Remainder Area)*

Specific Plans and/or other development proposals for the Remainder Area shall demonstrate that 10 percent of the exact dwelling unit counts would be reserved for very low–, low-, and middle-income levels.

Consistent with City policy, at the time specific development is proposed within the Remainder Area, a minimum of 10 percent of the exact dwelling unit counts shall be reserved for very low–, low;, and middle-income levels.

MM 4.2-2: *Relocation Assistance (Impact 4.2-3 – WRSP)*

The City shall provide relocation assistance and make all of the payments required by Chapter 16 (Commencing with Section 7260) of Division 7 of Title 1 of the Government Code, including the making of such payments financed by the federal government.

4.3 TRANSPORTATION AND CIRCULATION

4.3.1 Introduction

The City of Roseville's Capital Improvement Program (CIP) defines the roadway improvements that would be needed to meet its adopted level of service (LOS) policy under full build-out of all vacant land within the City (plus some potential redevelopment of properties within the City's Downtown area) and 2020 "market levels" of development in the rest of the region. This section evaluates the effects of the SOI amendment under the same "2020/build-out" conditions. The impacts of the SOI amendment under existing conditions are documented in Appendix Q.

The following documents were used in preparation of this section:

- *Supplement to the City of Roseville Capital Improvement Program EIR*, June 2002
- *City of Roseville General Plan*, November 1992, and amended in Jan 2003
- *City of Roseville Long Range Master Transit Plan*, September 1999
- *City of Roseville Short Range Transit Plan*, July 2000
- *City of Roseville Bicycle Master Plan*, July 2002
- *Placer County Capital Improvement Program*, July 2002
- *SACOG Metropolitan Transportation Plan* (MTP), July 2002
- *Placer Vineyards Specific Plan*, March 1999
- *South Sutter County Specific Plan Transportation and Circulation Assessment*, May 2001
- *City of Rocklin General Plan*, April 2001
- *City of Rocklin Capital Improvement Program*, March 1995

An initial review of the project determined that implementation of the project would not affect air traffic patterns or result in inadequate parking capacity. Therefore, these issues are not addressed in this EIR.

This traffic analysis is based on the land uses identified in the NOP. As discussed in Chapter 4 of this EIR, Environmental Analysis, minor changes have been made to the proposed land uses for the WRSP since publication of the NOP. The change in the land use plan resulted in a modification to the backbone infrastructure network and a slight increase in the trip generation rate (less than 1 percent). This slight increase would not affect the conclusions of this analysis, because it is generally within the tolerance of the traffic model used to determine future traffic volumes.

The traffic impacts of the SOI amendment and WRSP have been evaluated under a number of different scenarios of existing and future traffic conditions. Table 4.3-1 provides a summary of those scenarios, as well as the sections of the document where the traffic analyses are discussed.

Table 4.3-1 Description of Traffic Analysis Scenarios

Scenario	Description of Scenario	Section Where Traffic Analysis is Discussed
Existing Conditions		
Existing Conditions	Reflects recent traffic count data and existing operating conditions	Appendix Q
Existing Plus SOI Amendment Area	Changes in existing traffic conditions if the full SOI Amendment Area were developed today	Appendix Q
Existing Plus WRSP	Changes in existing traffic conditions if the full WRSP were developed today	Appendix Q
2020 Conditions		
2020 Baseline	Projection of traffic conditions in the year 2020 with build-out of currently entitled land in the City plus 2020 market levels outside the City. Improvement projects contained in the City's Capital Improvement Program (CIP) are also included.	Section 4.3
2020 Plus SOI Amendment	Changes in 2020 Without Project traffic conditions if the full SOI Amendment Area develops	Section 4.3
2020 Plus WRSP	Changes in 2020 Without Project traffic conditions if the WRSP develops	Section 4.3
Other Scenarios		
2020 Baseline with Kaiser Medical Center Expansion	Same as 2020 baseline, except it includes the change in traffic conditions due to the proposed expansion of the Kaiser Medical Center.	Chapter 5
2020 with Kaiser Medical Center Expansion Plus SOI Amendment	Changes in 2020 with Kaiser Medical Center Expansion traffic conditions if the SOI Amendment Area develops	Chapter 5
2020 with Kaiser Medical Center Expansion Plus WRSP	Changes in 2020 with Kaiser Medical Center Expansion traffic conditions if the WRSP develops	Chapter 5
2020 Conditions with Placer Parkway Plus SOI Amendment	Changes in 2020 Plus SOI Amendment traffic conditions if the proposed Placer Parkway project were constructed	Chapter 5
Cumulative Conditions With Additional Development	Qualitative discussion only of 2020 with other potential projects including build-out of Placer Vineyards, Placer Ranch, De La Salle University, and South Sutter Industrial Area	Chapter 5
2020 Plus Alternative 2, SOI Amendment	Changes in 2020 traffic conditions under Alternative 2 for the full SOI Amendment Area	Chapter 6
2020 Plus Alternative 2, WRSP	Changes in 2020 traffic conditions under Alternative 2 for the WRSP only	Chapter 6
2020 Plus Alternative 4	Qualitative discussion only of 2020 under Alternative 4	Chapter 6

4.3.2 Environmental Setting

The evaluation of the operating characteristics of the existing circulation system in the City of Roseville is the initial task in defining impacts of the WRSP and SOI amendment on the circulation system. In order to understand existing travel patterns and conditions, all major aspects of transportation in Roseville were inventoried and analyzed.

The following sections briefly discuss roadway functions, traffic volumes, and traffic levels of service, as well as transit, truck and rail services, and bicycle routes.

Street and Highway System

Roadway Functional Classification

The existing street network in the City of Roseville is a product both of roadways that have provided access to the older portions of the City for decades and of roadways that were designed to serve newer specific plan areas. In each of the City's eight specific plan areas and the North Industrial Area, arterial and collector roadway classifications have been defined and most of these roadways have been constructed. In the older portions of the City, roadways were classified as arterial or collector roadways in the 1992 General Plan Update.

The primary function of arterial roadways is to move large volumes of traffic through the City to other sections and beyond. In the specific plan areas, the right-of-way for arterials varies from 76 feet to 100 feet and generally incorporates four to six travel lanes, bicycle lanes, and a landscaped median. On-street parking on existing arterials in the specific plan areas is prohibited, and access is limited to minimize cross traffic turning movements in order to improve traffic safety and allow more efficient traffic flow. Outside the specific plan areas, some roadways function as arterials due to the current high traffic volumes and their key linkages between one section of the City and another. For these roadways, current right-of-way widths vary, but most contain more than two traffic lanes.

Collector streets generally link local residential streets and the commercial and office parking areas to the arterials. In the specific plan areas, the right-of-way for these streets varies from 54 feet to 60 feet and contains two traffic lanes and bicycle lanes. Outside the specific plan areas, a number of roadways function as collector roadways due to moderate traffic volumes and their linkage to the arterial roadway system. The right-of-way widths for these roadways vary, but most contain two traffic lanes.

Table 4.3-2 provides a summary of the arterial and collector roadways in the eight specific plan areas as well as the Infill and North Industrial areas. Figure 4.3-1 (Existing Arterial/Collector Roadway System) illustrates the arterial/collector roadway system that currently serves the City of Roseville. A few segments of the City's planned arterial and collector roadways in the specific plan areas are not currently constructed and, therefore, are not included in Figure 4.3-1.

The existing state highway and arterial systems within the City of Roseville are described below.

Table 4.3-2 Arterial and Collector System in the City of Roseville

Subarea	Arterials	Collectors
Infill	Vernon Street (north of Cirby) Atlantic Street (Vernon to I-80) Cirby Way Riverside Avenue Auburn Boulevard Roseville Road Harding Boulevard (north of Douglas) Douglas Boulevard Atkinson Street (south of Foothills) Rocky Ridge Drive Sunrise Avenue Roseville Parkway[2] (between Washington Boulevard and Foothill Boulevard)	Folsom Road Vineyard Road Church Street (west of Washington) Atkinson Street (Foothills to Village Green) Shasta Street (north of Yosemite) Vernon Street (south of Cirby) Sutter Avenue Lincoln Street (Sierra to Village Green and Vernon to Sutter) Oak Street (Judah to Lincoln) Grant Street Judah Street Estates Drive Melody Lane West Whyte Avenue Oak Ridge Drive Orlando Avenue Berry Street Yosemite Street Old Auburn Road (South Cirby to Sacramento County Line)
Northwest Roseville Specific Plan	Pleasant Grove Boulevard Foothills Boulevard Woodcreek Oaks Boulevard Junction Boulevard Washington Boulevard Baseline Road	Country Club Drive McAnally Drive
North Central Roseville Specific Plan	Washington Boulevard Harding Boulevard/Stanford Ranch Road Roseville Parkway Pleasant Grove Boulevard	Hallisey Drive Diamond Oaks Road Gibson Drive
Northeast Roseville Specific Plan	Sunrise Avenue Roseville Parkway Eureka Road Douglas Boulevard Sierra College Boulevard Taylor Road	Lead Hill Road Rocky Ridge Drive (north of Douglas Road) Olympus Drive
Southeast Roseville Specific Plan	Douglas Boulevard Roseville Parkway Sierra College Boulevard Eureka Road Rocky Ridge Drive (south of Douglas Boulevard)	Johnson Ranch Drive McLaren Drive Professional Drive Parkhill Road Old Auburn Road (south Cirby to Roseville Parkway) North Cirby Way
Del Webb Specific Plan	Fiddyment Road Blue Oaks Boulevard Pleasant Grove Boulevard	Del Webb Boulevard Sun City Boulevard
Highland Reserve North Specific Plan	Stanford Ranch Road Pleasant Grove Boulevard Fairway Drive[2]	Highland Drive[2] Central Park Drive[2]
North Roseville Specific Plan (Phases I, II and III)	Blue Oaks Boulevard Pleasant Grove Boulevard Baseline Road Junction Boulevard Woodcreek Oaks Boulevard	Diamond Creek Boulevard Crocker Ranch Road Opal Drive
North Roseville Industrial Area	Washington Boulevard Industrial Avenue Foothills Boulevard Blue Oaks Boulevard Woodcreek Oaks Boulevard	
Stoneridge Specific Plan	Sunrise Avenue Roseville Parkway Secret Ravine Parkway	Alexandra Drive[2] Scarborough Drive[2]

NOTES:

1. See Figure 4.3-1. Some segments of planned roadways are not constructed, and have not been reflected on Figure 4.3-1.
2. Portions of roadway have not yet been completed.

SOURCE: City of Roseville 2002; DKS Associates 2003

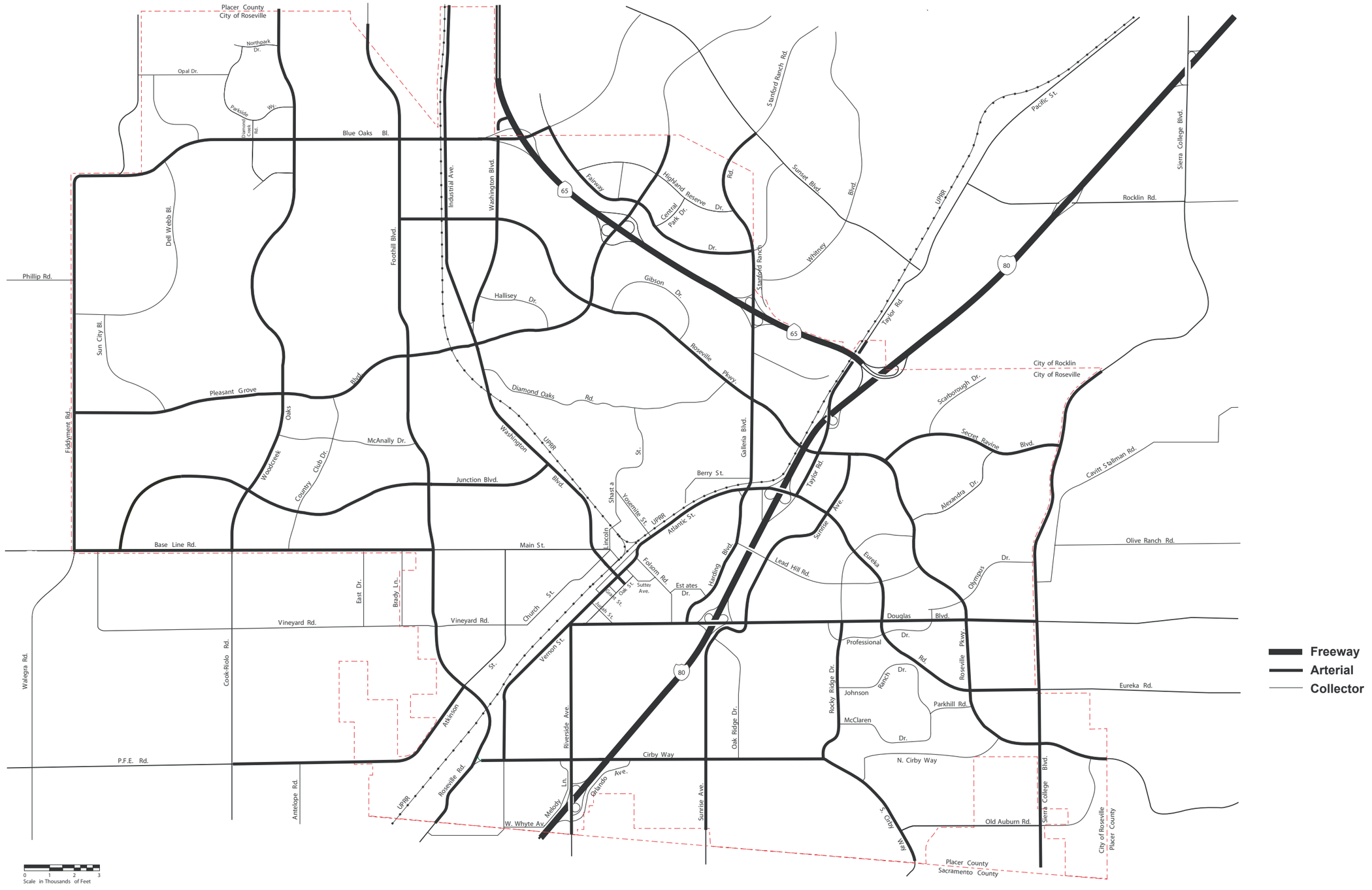


FIGURE **4.3-1**

Existing Arterial/Collector Roadway System

***Source*:** DKS Associates

City of Roseville

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State Highway System

Roseville is served by an interstate highway (I-80) and a state highway, State Route 65 (SR-65). I-80 is a transcontinental highway that links Roseville not only to Sacramento and the Bay Area, but to the rest of the United States via its crossing of the Sierra. It carries commute traffic between Placer and Sacramento counties, as well as interregional and interstate business, freight, tourist, and recreational travel. Roseville is connected to I-80 by five interchanges: Riverside Avenue, Douglas Boulevard, Eureka Road/Atlantic Street, Taylor Road, and SR-65. This freeway has eight lanes west of Riverside Avenue and six lanes through the remainder of Roseville. Existing (2001) traffic volumes range from 172,300 vehicles per day west of Riverside Avenue to 109,000 vehicles per day east of SR-65.

SR-65 is generally a north/south trending State Route that connects Roseville with the cities of Lincoln and Marysville (via Highway 70). In Roseville, this highway is a four-lane freeway with access provided by four interchanges: I-80, Galleria Boulevard/Stanford Ranch Road, Pleasant Grove Boulevard and Blue Oaks Boulevard. Existing traffic volumes range from about 68,000 vehicles per day between I-80 and Galleria to 40,000 vehicles per day north of Blue Oaks.

Arterial Street System

The arterial network could be the most important system of roads within the overall street system. It links residential areas to both commercial and employment centers and links all of these uses to the regional freeway system. The existing arterial network in the City of Roseville is described below. The traffic volumes associated with each roadway are based on traffic counts collected by the City in April and May 2001.

Atkinson Street is a north/south roadway that connects PFE Road to Village Green Drive. South of Foothills Boulevard, it is a two-lane arterial that serves 15,200 vehicles per day. Between Foothills Boulevard and Vineyard Road it is a two-lane collector that carries about 8,000 vehicles per day. North of Vineyard Road, it is a local roadway that currently carries 2,600 vehicles per day.

Atlantic Street connects downtown Roseville to I-80 as well as to the Northeast Specific Plan Area via Eureka Road. It was recently widened to four lanes between Harding Boulevard and Vernon Street. Between Vernon Street and Harding Boulevard, Atlantic Street carries about 13,800 vehicles per day.

Baseline Road is an east/west arterial that links Roseville with the Dry Creek Area and SR-70/99. From the City limits east, Baseline Road is a two-lane road until it becomes Village Green Drive at Foothills

Boulevard. Daily volumes on Baseline Road east of Country Club Drive are about 16,200 vehicles per day.

Blue Oaks Boulevard is an east/west arterial that links the cities of Roseville and Rocklin to each other and to SR-65. Between SR-65 and Woodcreek Oaks Boulevard it has four lanes. It serves about 23,900 vehicles per day east of Foothill Boulevard. From Woodcreek Oaks Boulevard to Fiddyment Road it has two lanes and carries about 7,200 vehicles per day.

Cirby Way is another major east/west arterial. It is a four-lane road that extends from the Roseville Road/Foothills Boulevard intersection, passes over I-80, and terminates at Old Auburn Road. Cirby Way serves its highest daily volumes west of Riverside Avenue (37,400 vehicles per day).

Douglas Boulevard is a major east/west arterial that connects the central portions of Roseville to I-80 and Granite Bay. It has six lanes from Sierra College Boulevard to Sunrise Avenue, but narrows to four lanes west of Sunrise Avenue. It remains four lanes through the Douglas Boulevard/I-80 interchange until Judah Street where it further narrows to two lanes, until it ends at Vernon Street. East of Sierra College Boulevard, Douglas Boulevard is four lanes wide. Traffic volumes are heaviest on Douglas Boulevard east of Folsom Road west of Sunrise Avenue where it carries about 64,000 vehicles per day).

Eureka Road is a major east/west arterial that links southeast Roseville to northeast Roseville and provides access to I-80 and downtown Roseville via Atlantic Street. Eureka Road contains four lanes from Sierra College Boulevard to south of Douglas Boulevard. From there it widens to six lanes and continues roughly northwest until it intersects with I-80. Daily traffic volumes on Eureka Road are heaviest between Sunrise Avenue and I-80 where it carries about 48,900 vehicles per day.

Fiddyment Road is a two-lane, north/south arterial that runs along the western City limit of Roseville from Baseline Road north into Placer County. Daily traffic volumes on Fiddyment Road are heaviest north of Baseline Road where it carries about 6,000 vehicles per day

Foothills Boulevard is the major north/south arterial in Roseville west of I-80. It extends as far south as Cirby Way, where it becomes Roseville Road and continues south into Sacramento. North of Cirby Way it traverses portions of the City's Infill Area, Northwest Specific Plan and North Industrial Area and currently ends at Duluth Avenue at the northern City limits. This roadway (along with Washington Boulevard, Harding Boulevard and SR-65) provides one of only four grade-separated crossings of the Union Pacific railroad mainline. This four-lane arterial serves its highest daily volume south of Atkinson Street (40,000 vehicles per day).

Harding Boulevard/Galleria Boulevard is a major north/south arterial that runs from Douglas Boulevard to SR-65. From Douglas Boulevard to Atlantic Street, this four-lane arterial parallels I-80, serving a commercial area with daily traffic volumes that range from 20,100 vehicles per day (north of Douglas Boulevard) to 25,500 vehicles per day (south of Atlantic Street). North of its bridge over the Union Pacific mainline and Atlantic Street, it becomes Galleria Boulevard which extends pass the Galleria Mall to SR-65. Galleria Boulevard is a six-lane arterial north of Roseville Parkway. Galleria Boulevard south of SR-65 carries about 38,900 vehicles per day.

Industrial Avenue extends from Washington Boulevard north, past the north City limit of Roseville, and into the Sunset Industrial Area. It is a two-lane arterial that runs north/south and serves 4,800 vehicles per day north of Blue Oaks Boulevard.

Junction Boulevard is an east/west arterial in west Roseville that has four lanes from Washington Boulevard to Baseline Road. Junction Boulevard carries about 8,400 vehicles per day east of County Club Drive.

Pleasant Grove Boulevard is an east/west arterial that extends from Fiddyment Road to the City of Rocklin where it becomes Park Drive and connects the Del Webb Specific Plan, the Northwest Roseville Specific Plan, the North Central Roseville Specific Plan and the Highland Reserve Specific Plan to each other and to SR-65. It is a two-lane facility between Fiddyment Road and Woodcreek Oaks Boulevard, a four-lane roadway from Woodcreek Oaks Boulevard to Foothills Boulevard and a six-lane facility between Foothills Boulevard and SR-65. Daily traffic volumes on Pleasant Grove Boulevard range from 3,700 vehicles per day east of Fiddyment Road to 23,200 east of Foothill Boulevard.

Riverside Avenue extends north from Auburn Boulevard (Sacramento County) as a major north/south arterial. It connects south/central Roseville to I-80 and Sacramento County. Auburn Boulevard is a four-lane arterial that extends from the Sacramento County line north to I-80, where it becomes Riverside Avenue. Riverside Avenue continues north from I-80 to Douglas Boulevard and Vernon Street. Riverside Avenue has four lanes south of 6th Street and two lanes north of 6th Street. Both Auburn Boulevard and Riverside Avenue serve heavy daily traffic volumes near the I-80 interchange.

Rocky Ridge Drive is a four-lane north/south arterial that begins at Cirby Way and extends north to Roseville Parkway. Daily traffic volumes on Rocky Ridge Drive range from 23,000 vehicles per day north of Cirby Way to 9,500 vehicles per day between Eureka Road and Roseville Parkway.

Roseville Parkway is an arterial that links the Southeast, Northeast and North Central Specific Plan areas. From Placer County east of Sierra College Boulevard to Douglas Boulevard, it is four lanes wide. It serves

an average daily traffic of 16,800 vehicles per day west of Sierra College Boulevard. North of Douglas Boulevard, until it ends at Washington Boulevard, it is six lanes wide. It was recently extended through the Stoneridge Specific Plan Area and traffic counts in this EIR do not reflect that extension. It carries a daily traffic volume of about 22,700 vehicles per day at its bridge over I-80.

Roseville Road is an arterial that runs parallel to I-80 from the end of Cirby Way to the southern City limit of Roseville. This two-lane arterial serves 14,600 vehicles per day.

Sierra College Boulevard is another major north/south arterial on the east side of Roseville. Portions of this roadway have two lanes while other portions have four lanes. This arterial carries 30,000 vehicles per day south of Old Auburn Road and 21,400 vehicles per day north of Douglas Boulevard.

Stanford Ranch Road extends from the SR-65/Stanford Ranch interchange north into the City of Rocklin. It is a major six-lane arterial and carries 53,400 vehicles per day north of SR-65.

Sunrise Avenue is a major north/south arterial in Roseville. It links central Roseville to Sacramento County and is the primary arterial linking north and south Roseville east of I-80. Sunrise Avenue has four lanes from the Sacramento County line to Lead Hill Boulevard, where it widens to six lanes until it ends at Roseville Parkway. Daily volumes on Sunrise Avenue are highest north of Cirby Way (36,700 vehicles per day).

Taylor Road is a north/south arterial which connects Roseville to the City of Rocklin. From Eureka Road to the Taylor Road/I-80 interchange, it is a four-lane arterial. It narrows to two lanes north of I-80 where it carries about 22,500 vehicles per day.

Vernon Street is an arterial that parallels the UP railroad and connects Cirby Way, Douglas Boulevard and Riverside Avenue on the south side of downtown Roseville to Atlantic Street on the north side of downtown. Most of Vernon Street has two lanes, except a four-lane segment north of Douglas Boulevard where daily volumes reach 11,400 vehicles per day.

Washington Boulevard is a major north/south arterial. It connects SR-65 and Blue Oaks Boulevard on the north to Oak Street in downtown Roseville. Most of Washington Boulevard has four lanes, except a two-lane segment north and south of where it crosses under the Union Pacific railroad north/south tracks. Along with Foothills Boulevard and SR-65, it provides one of three grade-separated crossings of the UP east/west mainline tracks. It serves its highest daily volume north of Village Green Drive where it carries about 21,000 vehicles per day.

Woodcreek Oaks Boulevard is a north/south arterial that extends from Baseline Road to Blue Oaks Boulevard. Most of this arterial currently has only two lanes, but its wide median is designed for widening to four lanes. It carries about 12,600 vehicles per day north of Junction Boulevard.

Local Roadway Network

West Roseville Specific Plan

The WRSP Area is served by existing roadways discussed above, as well as other roadways outside of the existing City of Roseville (see Figure 4.3-1). No City roadways exist within the WRSP Area. Fiddyment Road currently is the western boundary for the City of Roseville and would form the eastern boundary of the WRSP Area. It runs generally north/south along the eastern edge of the WRSP Area. Blue Oaks Boulevard currently ends at Fiddyment Road and would be extended to the west through the WRSP Area to meet up with the existing Phillip Road and ultimately to West Side Drive. Phillip Road is a narrow, unimproved rural road, a portion of which is gravel, which currently runs through the WRSP Area. It is generally an east/west roadway that has numerous 90-degree turns and it meets up with Fiddyment Road between Blue Oaks Boulevard and Pleasant Grove Boulevard. Pleasant Grove Boulevard is an east/west arterial roadway that runs generally from SR-65 to Fiddyment Road.

Remainder Area

The Remainder Area is defined as the balance of the SOI Area, excluding the WRSP. The Remainder Area would be served by many of the same roadways as the WRSP Area, as well as some additional roadways (see Figure 4.3-1). Baseline Road is an east/west roadway that connects the southwest portion of Placer County with the southern portion of Sutter County, where it is known as Riego Road. Baseline Road/Riego Road provides access from the City of Roseville to SR-70/99 to the west. Baseline Road would form the southern edge of the SOI Amendment Area. Watt Avenue is a north/south arterial that provides a connection between southwest Placer County and Sacramento County. It currently begins at Baseline Road and continues south to Elk Grove in southern Sacramento County, where it is known as Elk Grove/Florin Road. The intersection of Watt Avenue and Baseline Road is near the southwest corner of the SOI Amendment Area. Walerga Road is a north/south roadway that connects Placer County and Sacramento County. Walerga Road has recently been realigned to meet Baseline Road at Fiddyment Road.

Traffic Volumes

One of the key evaluation measures of a City's roadway system is a comparison of daily and peak period traffic volumes on its major roadway system. The traffic data within the City of Roseville were provided

by the City of Roseville Public Works Department. These data include both daily traffic counts at spot locations throughout the City and peak period turning movement counts at about 114 existing signalized intersections conducted in April and May 2001. Year 2001 traffic count data for many study area roadways outside the City of Roseville were also available from other jurisdictions. Some additional traffic counts were collected in September 2002 and August 2003 for some roadways and intersections within the study area.

Average daily traffic volumes (ADT) represent the total volume passing a point or segment of roadway, in both directions, on an average weekday. ADTs on a number of key roadway segments are shown on Figure 4.3-2 (Existing Daily Traffic Volumes).

When the City conducted the comprehensive set of traffic counts in April and May 2001, a few roadways that now exist were not constructed (i.e., Roseville Parkway through the Stoneridge Specific Plan, Junction Boulevard through the North Roseville Specific Plan Phase 2 area, etc.) and thus are not shown on Figure 4.3-2, which shows 2001 traffic counts.

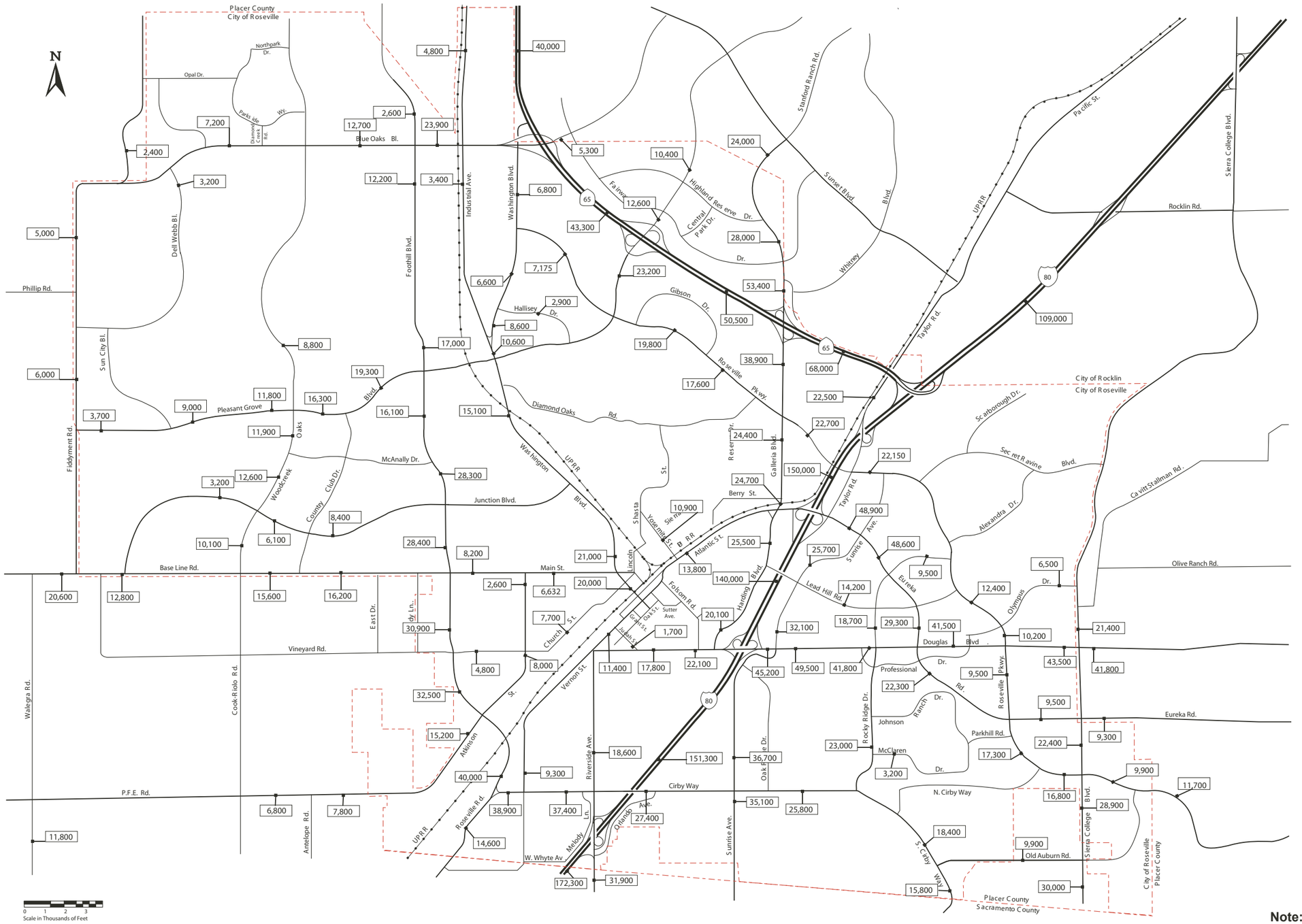
Traffic Levels of Service

The evaluation of traffic volumes on the roadway network provides an understanding of the general nature of travel conditions in the City of Roseville. However, traffic volumes do not indicate the quality of service provided by the street facilities or the ability of the street network to carry additional traffic. To accomplish this, the concept of "level of service" has been developed.

"Levels of service" describe roadway-operating conditions. Level of service is a qualitative measure of the effect of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs. Levels of service are designated "A" through "F" from best to worst, which cover the entire range of traffic operations that might occur. Level of service (LOS) A through E generally represent traffic volumes at less than roadway capacity, while LOS F represents over capacity and/or forced conditions.

The City revised its level of service policy with the update of the Capital Improvement Program (CIP), which was adopted in September 2002. The new level of service policy calls for the City to maintain a LOS C standard at 70 percent of all signalized intersections in the City during the P.M. peak hour. Compliance with this policy is determined assuming build-out of currently entitled land within the City and 2020 market rate development outside of the City.

The traffic flow and capacity of Roseville's arterial/collector system is principally controlled by the capacity of its signalized intersections. Intersection operations were evaluated using a modified version



Note: April/May 2001 Counts

FIGURE **4.3-2**

Existing Daily Traffic Volumes

10659-00

***Source*:** DKS Associates

City of Roseville

EIP ASSOCIATES

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Table 4.3-3 Level of Service Definitions at Signalized Intersections

Level of Service (LOS)	Volume to Capacity Ratio[1]	Description
A	0.00–0.60	Free Flow/Insignificant Delays: No approach phase is fully utilized by traffic and no vehicle waits longer than one red signal indication.
B	0.61–0.70	Stable Operation/Minimal Delays: An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles.
C[2]	0.71–0.81	Stable Operation/Acceptable Delays: Major approach phases fully utilized. Most drivers feel somewhat restricted.
D	0.82–0.90	Approaching Unstable/Tolerable Delays: Drivers may have to wait through more than one red signal indication. Queues may develop but dissipate rapidly, without excessive delays.
E	0.91–1.00	Unstable Operation/Significant Delays: Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
F	Greater than 1.00	Forced Flow/Excessive Delays: Represents jammed conditions. Intersection operates below capacity with low volumes. Queues may block upstream intersections.

NOTES:
The ratio of the traffic volume demand at an intersection to the capacity of the intersection.
The City of Roseville has established a volume-to-capacity ratio of 0.81 as the LOS C threshold.
SOURCE: Transportation Research Board 1985

of the Transportation Research Board Circular 212 (critical movement) method that was adopted for Roseville's CIP. Table 4.3-3 presents the level of service categories for signalized intersections considered in this analysis and provides a definition of each category with the corresponding volume-to-capacity ratios. The P.M. peak hour is used in the operational analysis of the City's roadway system since it generally represents the highest hour for overall traffic volumes during the day.

Table 4.3-4 summarizes the existing levels of service during the P.M. peak hour at 114 signalized intersections. The levels of service at these intersections are based on turning movement volumes collected by the City in April and May 2001.

Transit and Passenger Rail

Transit service is currently provided to the residents of the City of Roseville by two transit providers: Roseville Transit Services and Placer County Transit. Current transit routes serving the City are shown on Figure 4.3-3 (Existing Transit Routes). Other transit systems in Roseville include taxicab services, Greyhound Bus Lines, and Amtrak. These existing transit services are described below.

City of Roseville, Roseville Transit Services

Roseville Transit, which is operated by the City of Roseville, provides three types of local transit services, fixed route, dial-a-ride, and commuter. The fixed route and dial a ride services are local, within the City of Roseville, whereas the commuter service provides regional trips into the downtown Sacramento area.

Table 4.3-4 Existing Levels of Service at Major Intersections in the City of Roseville

Roadway		Existing Conditions	
North/South	East/West	LOS	V/C
Tiger/Center	Atlantic Street	A	0.44
Wills	Atlantic Street	A	0.60
Yosemite	Atlantic Street	A	0.52
Prairie Woods	Blue Oaks Boulevard	A	0.18
SR-65 NB off	Blue Oaks Boulevard	A	0.14
Washington Boulevard	Blue Oaks Boulevard	A	0.33
Woodcreek Oaks	Blue Oaks Boulevard	A	0.29
Champion Oaks	Cirby Way	A	0.44
Melody	Cirby Way	B	0.67
Northridge/Lindsay	Cirby Way	B	0.60
Oak Ridge Drive	Cirby Way	A	0.58
Orlando Avenue	Cirby Way	A	0.54
Parkview	Cirby Way	A	0.48
San Simeon	Cirby Way	B	0.65
Vernon Street	Cirby Way	E	0.91
Eureka Road	Douglas Boulevard	C	0.77
Folsom Road	Douglas Boulevard	A	0.52
Harding Boulevard	Douglas Boulevard	C	0.72
Judah	Douglas Boulevard	A	0.55
Keehner/Donner	Douglas Boulevard	A	0.37
Park	Douglas Boulevard	A	0.32
Riverside Avenue	Douglas Boulevard	E	0.94
Rocky Ridge Drive	Douglas Boulevard	C	0.74
Roseville Parkway	Douglas Boulevard	A	0.52
Santa Clara Drive	Douglas Boulevard	E	0.97
Sierra College	Douglas Boulevard	E	0.93
Sierra Gardens	Douglas Boulevard	C	0.76
Target	Douglas Boulevard	A	0.56
Eureka Road	Deer Valley	A	0.46
Eureka Road	Lead Hill Road	A	0.56
Ashland	Eureka Road	A	0.19
Five Star	Fairway Drive	A	0.2
Home Depot	Fairway Drive	A	0.25
Fiddyment Road	Baseline Road	B	0.65
Foothills Boulevard	Albertsons	A	0.37
Foothills Boulevard	Atkinson Street	C	0.75
Foothills Boulevard	Blue Oaks Boulevard	A	0.27
Foothills Boulevard	Cirby Way	E	0.96
Foothills Boulevard	H.P. South	A	0.3
Foothills Boulevard	Junction Boulevard	C	0.71
Foothills Boulevard	Village Green Drive	C	0.76
Foothills Boulevard	McAnally	A	0.47
Foothills Boulevard	Mistywood/NEC	A	0.54
Foothills Boulevard	Pleasant Grove	B	0.63

Table 4.3-4 Existing Levels of Service at Major Intersections in the City of Roseville

Roadway		Existing Conditions	
North/South	East/West	LOS	V/C
Foothills Boulevard	Rand/Pilgrims	A	0.42
Foothills Boulevard	Vineyard Road	A	0.53
Galleria	Antelope Creek	A	0.45
Galleria	Berry	A	0.41
Harding Boulevard	Estates Road	B	0.64
Harding Boulevard	Lead Hill Road	A	0.55
Harding Boulevard	Roseville Square	A	0.50
Harding Boulevard	Wills Road	A	0.44
I-80 WB Ramps	Atlantic Street	A	0.47
Americana	Junction Boulevard	A	0.32
Country Club	Junction Boulevard	A	0.37
Porter	Junction Boulevard	A	0.34
Revere	Junction Boulevard	A	0.27
Hallisey	Pleasant Grove	A	0.30
Washington Boulevard	Pleasant Grove	A	0.54
Pleasant Grove	Roseville Parkway	A	0.42
Riverside Avenue	Cirby Way	D	0.89
Riverside Avenue	Darling Way	B	0.68
Rocky Ridge Drive	Cirby Way	C	0.72
Rocky Ridge Drive	Eureka Road	D	0.84
Rocky Ridge Drive	Lead Hill Road	A	0.53
Rocky Ridge Drive	Maidu	A	0.49
Rocky Ridge Drive	McLaren	A	0.46
Rocky Ridge Drive	Professional	A	0.56
Roseville Parkway	Eureka Road	A	0.41
Roseville Parkway	Lead Hill Road	A	0.44
Roseville Parkway	Olympus Drive	A	0.45
Creekside	Roseville Parkway	A	0.26
Galleria Boulevard	Roseville Parkway	A	0.53
Gibson	Roseville Parkway	A	0.24
N. Cirby	Roseville Parkway	A	0.42
Old Auburn Road	Roseville Parkway	A	0.44
Reserve	Roseville Parkway	A	0.35
Sierra College	Roseville Parkway	C	0.73
Taylor Road	Roseville Parkway	A	0.39
Washington Boulevard	Roseville Parkway	A	0.14
West Mall	Roseville Parkway	A	0.35
Sierra College Boulevard	Eureka Road	A	0.59
Sierra College Boulevard	Indigo Creek	A	0.31
Sierra College Boulevard	Old Auburn Road	C	0.78
Sierra College Boulevard	Olympus Drive	B	0.64
South Cirby Way	Old Auburn Road	C	0.74
Stanford Ranch Road	Fairway Drive	A	0.54
Stanford Ranch Road	Five Star Boulevard	B	0.63

Table 4.3-4 Existing Levels of Service at Major Intersections in the City of Roseville

Roadway		Existing Conditions	
North/South	East/West	LOS	V/C
Stanford Ranch Road	Highland Park D	A	0.28
Stanford/Galleria	SR-65 NB ramps	A	0.54
Stanford/Galleria	SR-65 SB ramps	C	0.72
Sunrise Avenue	Automall	B	0.60
Sunrise Avenue	Cirby Way	F	1.08
Sunrise Avenue	Coloma Road	A	0.57
Sunrise Avenue	Douglas Boulevard	E	0.98
Sunrise Avenue	Eureka Road	D	0.82
Sunrise Avenue	Frances	A	0.50
Sunrise Avenue	Kensington	A	0.57
Sunrise Avenue	Lead Hill Road	C	0.80
Sunrise Avenue	Oak Ridge Drive	A	0.56
Sunrise Avenue	Roseville Parkway	A	0.59
Sunrise Avenue	Sierra Gardens	A	0.59
I-80 EB Ramps	Eureka Road	D	0.88
Grant Street	Vernon Street	A	0.42
Judah	Vernon Street	A	0.27
Lincoln Street	Vernon Street	A	0.57
Washington Boulevard	Hallisey	A	0.17
Washington Boulevard	Junction Boulevard	A	0.50
Washington Boulevard	Village Green Drive	B	0.62
Washington Boulevard	Oak Street	A	0.55
Washington Boulevard	Sawtell	A	0.53
Woodcreek Oaks	Baseline Road	C	0.75
Woodcreek Oaks	Canevari Road	A	0.39
Woodcreek Oaks	McAnally	A	0.53

NOTES:
1. Reflects 2001 traffic counts at all intersections.
2. V/C is volume capacity ratio that is used to define level of service (see Table 4.3-3).
3. Intersections operating at LOS D or worse conditions are shaded.

SOURCE: DKS Associates 2003

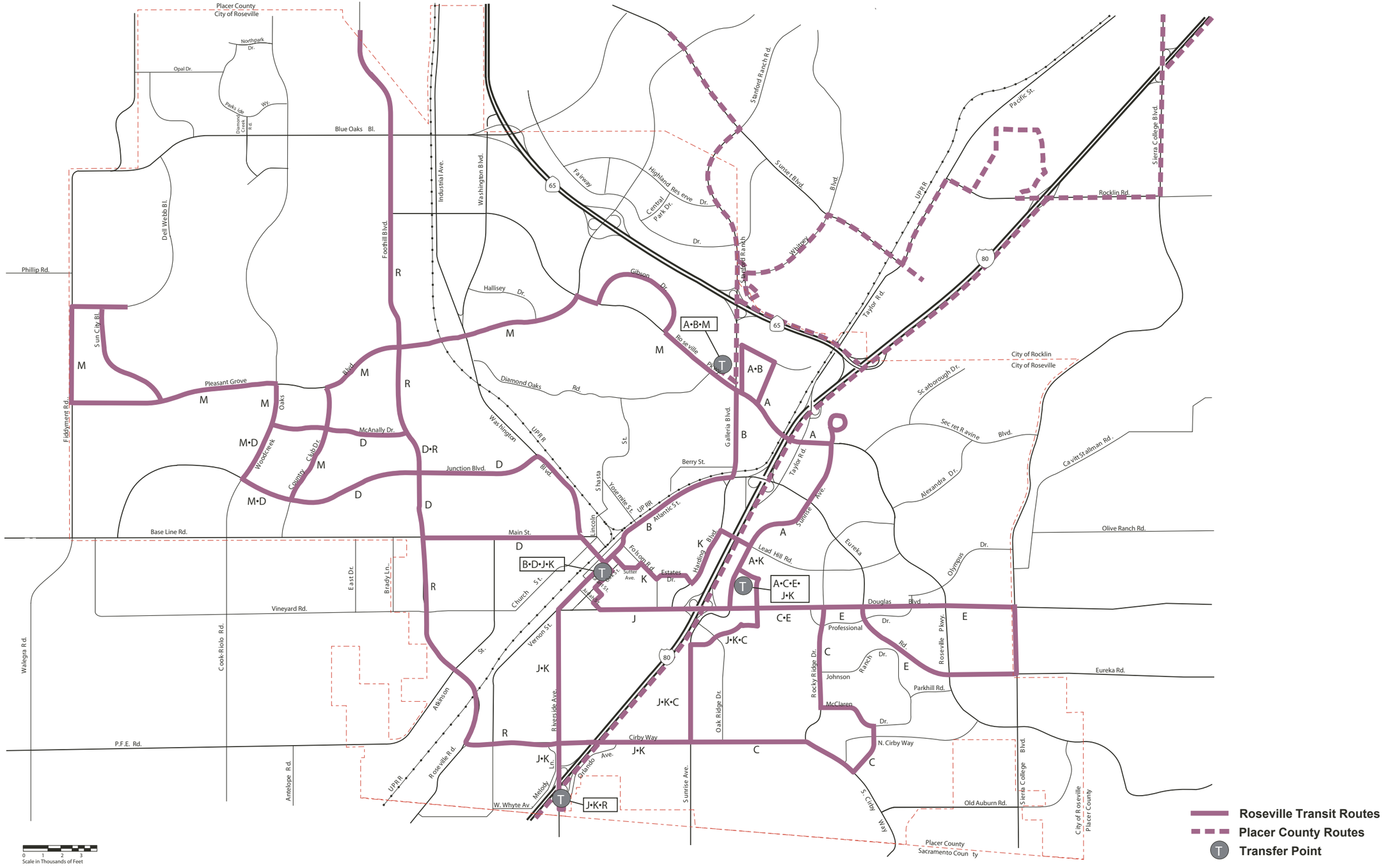


FIGURE **4.3-3**

Existing Transit Routes

10659-00

***Source*:** DKS Associates

City of Roseville

EIP ASSOCIATES

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Roseville Transit Commuter Service is a fixed-route scheduled transit system operated by the City of Roseville. It provides weekday commute period service between Roseville and downtown Sacramento. Figure 4.3-3 shows the Roseville end of the transit route.

Roseville Transit also operates a fixed-route scheduled transit system operated by the City of Roseville within the City limits. There are currently 13 scheduled routes. There are five "transfer points": Sierra Gardens, Galleria Mall, City Hall, Auburn/Whyte, and Woodcreek Oaks/Junction. Many of the Roseville Transit riders are elderly and disabled. The Roseville Transit system connects to both Placer County Transit (at Galleria Mall and Auburn/Whyte) and Sacramento Regional Transit (at Auburn/Whyte).

Roseville Transit Dial-a-Ride Service is a curb-to-curb system operated by the City of Roseville within its City limits, seven days a week. As a "dial-a-ride" service, it does not operate on fixed-route schedules; most of its ridership is elderly and disabled.

Placer County Transit Services

Placer County Transit is a fixed-route scheduled transit system operated by Placer County that principally serves the I-80, Highway 49 and SR-65 corridors. Some of the routes are "deviated." A "deviated route" means that the buses generally travel on a main route (i.e., I-80) but can deviate from that route up to a certain distance (three-quarter mile in the case of Placer County Transit) to serve the specific needs of transit patrons. Placer County Transit has an Auburn to Light Rail express route that stops at the Auburn/Whyte transfer point and connects to Sacramento Regional Transit there before proceeding to the Watt/I-80 light rail station. Placer County Transit also has a Lincoln to Galleria to Sierra College route.

Other Transit Services

Greyhound Bus Lines has a station at the intermodal facility (the Amtrak station) in Roseville. This station is a stop on the Sacramento to Auburn route and offers six to seven trips to Sacramento per day. From Sacramento, passengers can continue to destinations in any direction.

Taxi service is provided by several private companies.

Rail Service

Amtrak provides intercity rail service to Placer County via stations in Roseville and Colfax. The "California Zephyr" provides east/west service between Chicago and Oakland with one Roseville stop in each direction daily. Placer County residents can also access the California Zephyr at Truckee in Nevada

County. Other Amtrak trains can be accessed at Sacramento, or by using the Amtrak Throughway Bus Connections to Roseville.

Capital Corridor Intercity Rail links the Bay Area with the Sacramento area and Placer County. At present, one round trip train accesses Roseville daily. However, feeder bus service is provided to additional trains in Sacramento.

Bicycles

Bikeways are defined as specific routes and classes that meet minimum design standards. Roseville generally follows Caltrans' design standards for the following classes of bikeways:

- Class I bikeways, which provide a completely separated right-of-way designated for the exclusive use of bicycles and pedestrians with crossflows by motorists minimized. Class I bikeways are a minimum of 10 feet wide. A 2-foot graded area should parallel the bikeway on both sides, and the bikeway should be a minimum of 5 feet from an adjacent roadway. Class IA bikeways are a minimum of 8 feet wide.
- Class II bikeways, which provide a restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists permitted. Class II bikeways are typically 4 feet wide in Roseville and separated from vehicle traffic by a solid white stripe.
- Class III bikeways, which provide a right-of-way designated by signs or permanent markings, are shared with pedestrians or motorists.

In addition, Roseville has an additional classification for bikeways.

- Class IA facilities are bicycle paths that have been developed as parallel sidewalk routes along major roadways and are separated from the roadway by a landscape strip. Class IA bikeways have a minimum 8-foot planned width. Caltrans does not consider sidewalk facilities to be Class I facilities, and does not recommend that they be signed as bicycle routes. However, Class IA facilities are still desirable for bicyclists of lower skill levels, such as children, as well as others who are hesitant to utilize on-street routes.

The City of Roseville has an adopted Bikeway Master Plan, which provides guidelines for the development of a Citywide network of Class I, II, and III bicycle facilities and design standards (based on Caltrans standards) for new bicycle facilities within Roseville.

Figure 4.3-4 (Existing Bikeways) shows the existing bikeways within Roseville City limits and all points where Roseville bikeways connect with Placer County bicycle routes. Each of the eight specific plan areas contains significant bikeway elements within the plan areas.

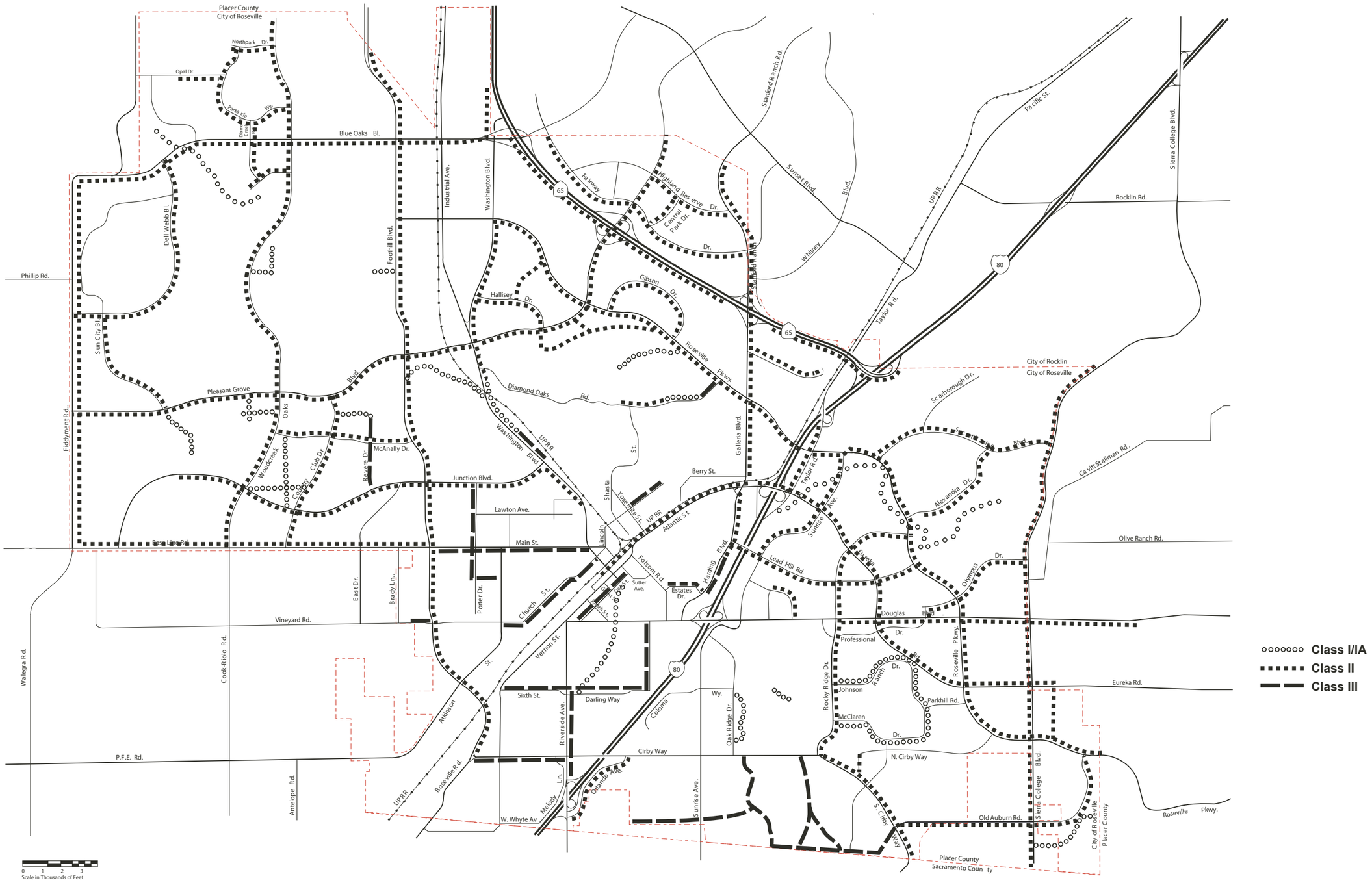


FIGURE **4.3-4**

Existing Bikeways

10659-00

***Source*:** DKS Associates

City of Roseville

EIP ASSOCIATES

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Truck Routes

Figure 4.3-5 (Truck Routes) shows the existing designated truck routes within the Roseville City limits. These include the following:

- I-80
- SR-65
- Baseline Road west of Foothills Boulevard
- Foothills Boulevard south of Baseline Road
- Cirby Way between Foothills Boulevard and Sunrise Avenue
- Roseville Road south of Cirby Way
- Riverside Avenue/Auburn Boulevard south of Cirby Way
- Sunrise Avenue south of Cirby Way
- Douglas Boulevard between Eureka Road and Sierra College Boulevard
- Eureka Road between Douglas Boulevard and I-80
- Sierra College Boulevard
- Fiddyment Road between Baseline and Blue Oaks Boulevard
- Blue Oaks Boulevard west of SR-65

These truck routes link with Sacramento County's designated truck routes on Roseville Road, Auburn Boulevard, Sunrise Boulevard, and Hazel Avenue.

Rail

Union Pacific's transcontinental rail line and its switching yard and maintenance facilities have played a major role in Roseville's history. The railroad facilities in the City have and will continue to have a significant effect on the area's economy. However, the railroad tracks and yard create a substantial barrier to both pedestrian and automobile circulation. They concentrate vehicle traffic into a limited number of crossings and thereby have a large influence on travel patterns through the City.

Figure 4.3-6 (Existing Railroad Facilities) shows the major rail lines that serve the City of Roseville, as well as existing crossings of these rail lines (both at-grade and grade-separated crossings).

The main line of the Union Pacific tracks crosses under SR-65 adjacent to Taylor Road. It then follows I-80 south to Atlantic Street, which it follows into downtown Roseville. It then connects with a northern spur

and enters the Roseville switching yard. Adjacent land use in this vicinity is a mixture of commercial, industrial, and residential land use. The switching yard then continues south past the City limits. There are only two at-grade crossings in the City limits, at Yosemite Street and Tiger Street. The main line crosses under Harding Boulevard, over Washington Boulevard and under Foothills Boulevard, which together with SR-65 are the only four grade-separated crossings of the Union Pacific main line tracks within the City (see Figure 4.3-6).

The northern spur of the Union Pacific rail line crosses under Blue Oaks Boulevard, adjacent to Industrial Avenue. The rail continues south and crosses over Washington Boulevard under Pleasant Grove Boulevard and under Sierra Boulevard before it joins the main line near the downtown area. There are no at-grade crossings of this spur line. The four grade-separated crossings (at Blue Oaks Boulevard, Pleasant Grove Boulevard, Washington Boulevard, and Sierra Boulevard) are shown on Figure 4.3-6.

Amtrak provides commuter rail service to the City. See discussion under the transit section, above.

Aviation

There are no existing aviation facilities within the City limits of Roseville. The nearest general aviation airport is the Lincoln Airport, located roughly 10 miles north of Roseville along SR-65. Other general aviation airports in the vicinity are the Auburn Airport, located approximately 20 miles northeast of Roseville near Highway 49 north of I-80, Rio Linda Airport, approximately 11 miles southwest of Roseville, and the Sacramento Metropolitan Airport, located 25 miles southwest of Roseville along Interstate 5 north of I-80.

4.3.3 Regulatory Setting

Federal and State

There are no known federal standards that would directly affect the transportation and circulation aspects of the SOI Amendment Area. However, with respect to state regulations, Caltrans' Transportation Concept Reports for SR-65, SR 70/99, and I-80 provides relevant background information and guidance.

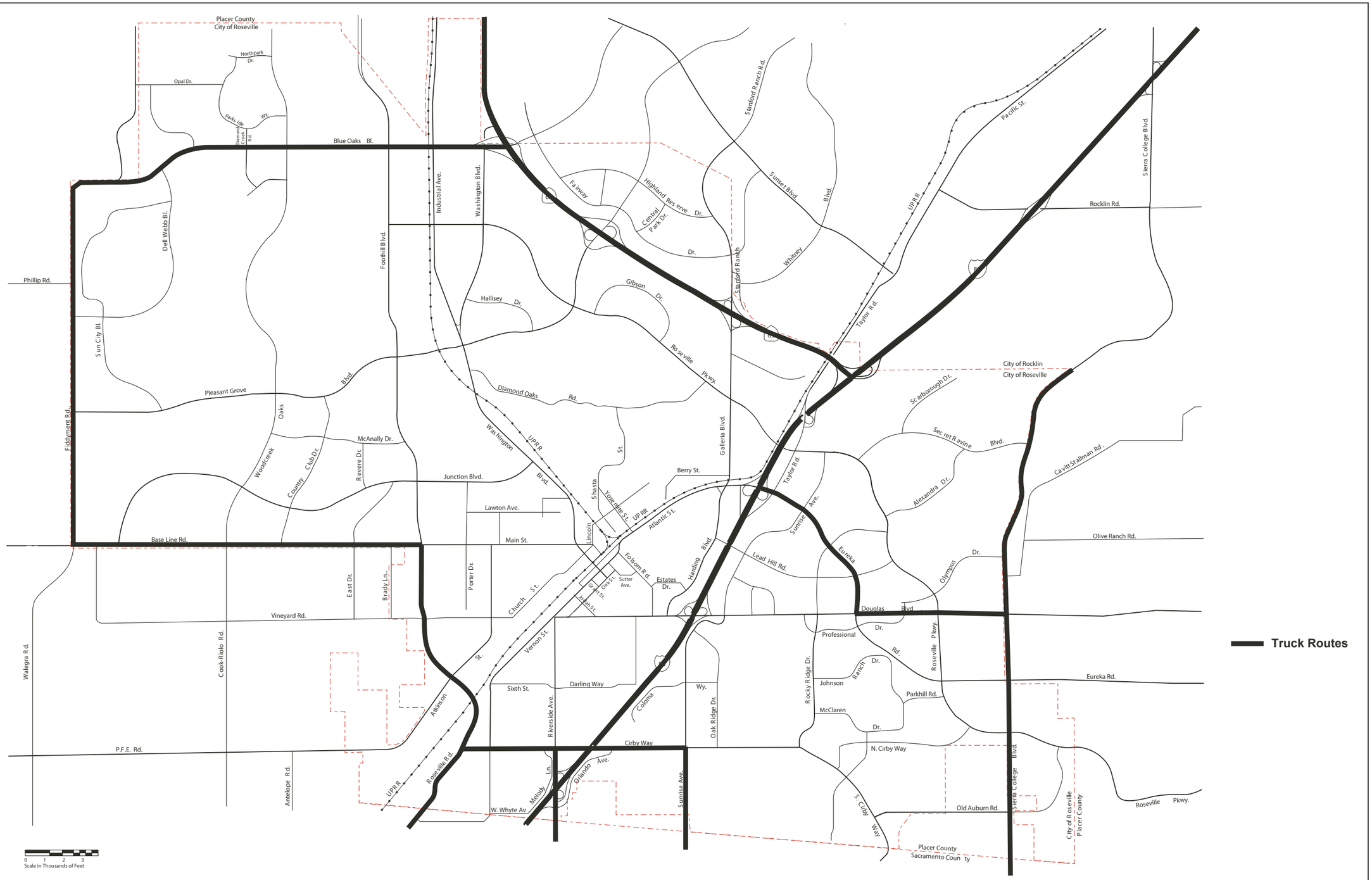


FIGURE **4.3-5**
Truck Routes

10659-00

Source: DKS Associates

City of Roseville

EIP ASSOCIATES

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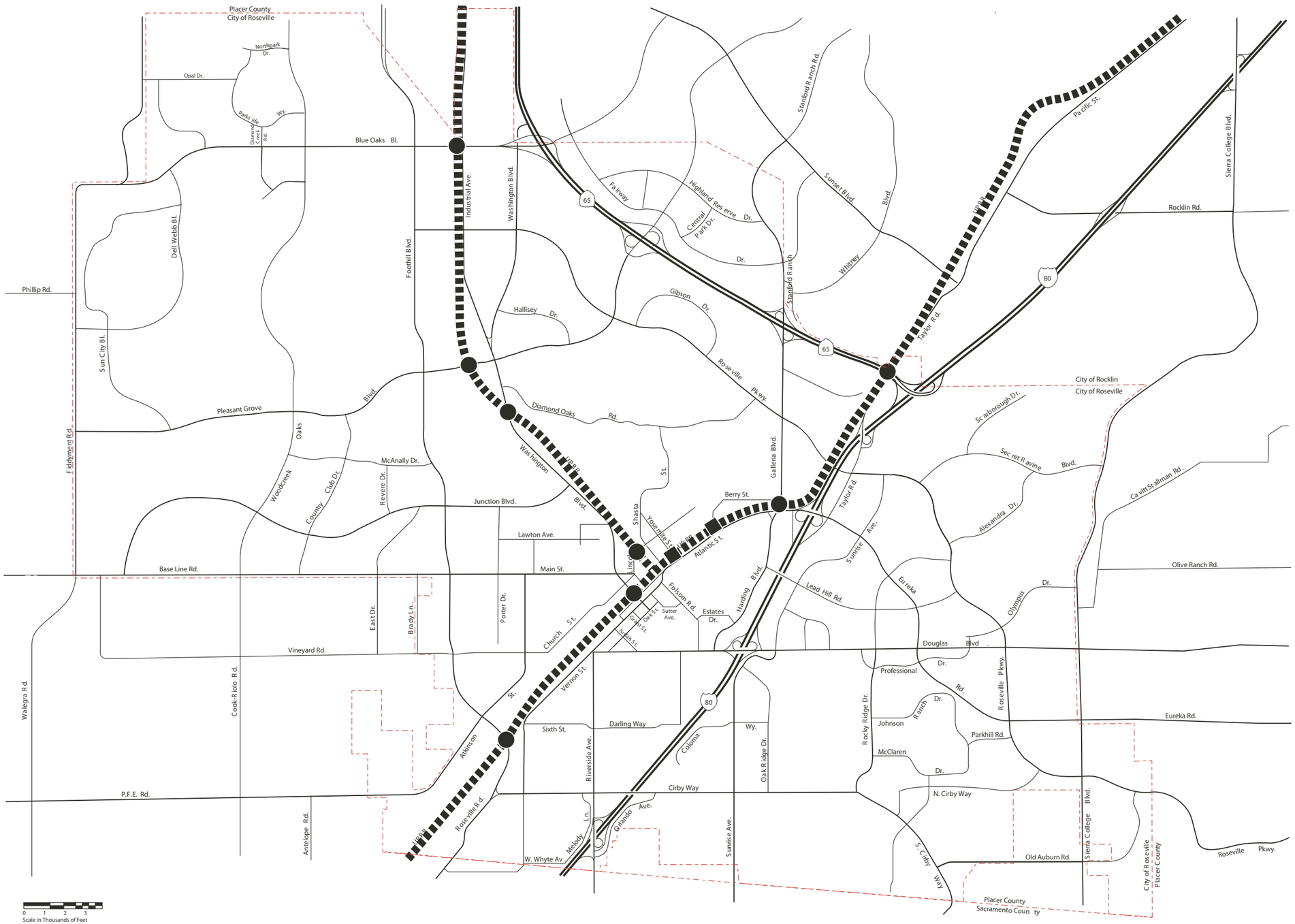


FIGURE **4.3-6**

Existing Railroad Facilities

10659-00

***Source*:** DKS Associates

City of Roseville

EIP ASSOCIATES

11x17 b&w fig p2

Local

City of Roseville

General Plan Level of Service (LOS) Policy

The City of Roseville level of service policy (General Plan Policy CB-1) calls for maintaining level of service (LOS) C at 70 percent of all signalized intersections in the City during the P.M. peak hour. Compliance with this policy is determined assuming build-out of currently entitled land within the City and 2020 market rate development outside of the City. Other transportation-related General Plan policies are provided in Appendix C.

City of Roseville Improvement Standards

Roadway improvements within the City of Roseville must conform to a set of standard plans that detail City standards for pavement width, lighting, drainage, sewer, and other roadside facilities. Roadway facilities associated with the WRSP must meet or exceed these standards.

Capital Improvement Program (CIP)

The CIP defines the roadway improvements that are needed to meet the City's General Plan level of service standard. The existing CIP that was adopted in September 2002 is based on build-out of currently entitled City land plus some potential redevelopment of properties within the City's Downtown area and 2020 market rate development outside of the City. The General Plan calls for the CIP to be updated at least every five years or following approval of a significant development. The CIP has been amended several times over the last 10 years as specific plans have been approved.

Long Range Transit Master Plan

The City has developed a plan to guide development of both inter- and intra-City transit services through year 2010.

Short Range Transit Plan

The SRTP is a state and federally mandated planning document that describes the plans, programs and goals of the transit operator. It has a 5-year planning horizon and is updated biennially. It focuses on the characteristics and capital needs of the existing system, and on committed (funded) expansion plans.

Bikeway Master Plan

The General Plan calls for the development of a comprehensive bikeway system that would provide connections between the City's major employment and housing areas and between existing and planned bikeways. The Bikeway Master Plan was updated in August 2002. It provides guidelines for the development of a citywide network of bicycle facilities and design standards for new bicycle facilities in Roseville.

Truck Routes

A number of roadways through the City of Roseville have been designated as truck routes. These routes are described in Section 4.3.2.

Transportation System Management (TSM)

TSM measures are designed to reduce vehicular travel demand and meet air quality goals. Employers of 50 or more employees within the City of Roseville are required to comply with the City's TSM ordinance and include TSM measures where feasible.

West Roseville Specific Plan

The WRSP Design Guidelines specify street configurations for all major roadways in the WRSP Area. Cross-sections for these roadways are provided in Appendix O, and described in the Methods section, above.

The WRSP also provides for a network of bike lanes.

The WRSP includes five park and ride lots with 20 parking spaces each, as well as bus turnouts and shelters.

4.3.4 Impacts and Mitigation Measures

The baseline for the analysis in this section is "2020/build-out" conditions without the proposed project. The effects of the SOI amendment on existing conditions are addressed in Appendix Q.

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area could do any of the following:

City of Roseville

- Cause a signalized intersection identified in the September 2002 CIP as functioning at LOS C or better in the P.M. to function at LOS D or worse
- Cause a signalized intersection identified in the September 2002 CIP as functioning at LOS D or E in the P.M. to degrade by one or more LOS category (i.e. from LOS D to LOS E)
- Cause the overall percentage of intersections meeting LOS C at P.M. peak hour to fall below 70 percent

  The City's 2002 CIP update included a modification to the City's level of service policy which requires that the City maintain a minimum of 70 percent of its signalized intersections at LOS C or better during the P.M. peak period. The impacts associated with this modification were identified in an EIR prepared in conjunction with the CIP update. That EIR identified all intersections projected to function at less than LOS C at year 2020 assuming build-out of the then current City limits.

  As implemented throughout the CIP, the revised General Plan LOS policy may allow additional intersections beyond those identified in the CIP EIR to function at less than LOS C provided the 70 percent is not exceeded. In addition, the EIR identified the potential for intersections which currently function at less than LOS C to degrade to a lower standard. Should either of these occur, the City's General Plan requires a formal action by the City Council at a public hearing to modify the projected LOS at these intersections.

  This EIR analysis for Roseville City streets uses both aspects of this LOS policy (LOS at individual intersections and maintaining LOS C at 70 percent of City intersections) when determining the significance of impacts.
- Not meet the policies and guidelines of Roseville's Bikeway Master Plan
- Have a substantial negative impact on transit operations, travel times, and/or circulation

Other

- Cause a state highway that is operating at LOS E or better without the WRSP or SOI amendment to operate at LOS F conditions
- Within the unincorporated portions of Placer and Sutter counties and the City of Rocklin that are in the project study area (1) cause a roadway or intersection operating at LOS C or better without the WRSP and SOI amendment to degrade to LOS D or worse or (2) cause a roadway or intersection operating at LOS D or worse without the WRSP or SOI amendment to degrade by one or more level of service
- In unincorporated Placer County, cause a rural 2-lane collector or arterial roadway that carries less than 2,000 daily vehicles without the project to carry more than 2,000 daily vehicles
- Within Sacramento County would (1) cause a roadway segment operating at LOS E or better without the WRSP and SOI amendment to degrade to LOS F or (2) cause a roadway segment

already operating at LOS F without the WRSP and SOI amendment to degrade by at least 0.05 V/C ratio

Methods of Analysis

The development of transportation system needs and impacts is based on the travel demand model originally developed by DKS Associates in 1992 for the City of Roseville and Placer County, which has since been updated and recalibrated. The most recent update was conducted as part of the City of Roseville's 2002 CIP Update, which revalidated the model to 2001 traffic conditions. The model translates land uses into roadway volume projections. Its inputs are estimates of development (i.e., the number of single-family and multi-family dwelling units, and the amount of square footage of various categories of non-residential uses) and descriptions of the roadway and transit systems. The model covers not only the City of Roseville, but also the entire Sacramento region (including the portions of Placer County west of Colfax). The model maintains a general consistency with the trip distribution and mode choice estimates from the regional model used by the Sacramento Area Council of Governments (SACOG).

The travel demand model was used to estimate future "2020" traffic volumes with and without the proposed WRSP and SOI amendment. The outputs of the travel demand model include average daily and peak hour traffic volume forecasts on roadway segments as well as turning movements at intersections. The level of service of Roseville's arterial and collector roadway system is primarily dictated by the capacity and operations of its signalized intersections. For this EIR under the 2020 baseline scenario, levels of service were evaluated at 150 existing and planned signalized intersections throughout the City of Roseville.

It should be noted that the traffic volume forecasts are not based on a simple layering/adding of assumed project-generated traffic volumes onto existing traffic counts. Rather, the City's travel demand model is also used to predict how travel patterns would change if the project land uses is added to existing or build-out land uses. The travel model redistributes trips and can cause traffic on some roadways to decrease and cause changes in "critical" traffic movements at intersections, sometimes at intersections some distance from the SOI Amendment Area.

Therefore, when determining transportation and circulation impacts, the traffic volumes associated with the SOI Amendment Area cannot be determined by simply adding the new volumes attributed to the WRSP and Remainder Area. The Travel Demand Model does not simply add project-related volumes to before-project volumes. When major land uses are added to the model, the model redistributes trips based on changes in regional land use. With changes in jobs and housing, people may change their commuting patterns; therefore, when both the WRSP and Remainder Areas are added to the model,

some trips will remain within the new development. For example, if just the WRSP were built, a person might live in the new WRSP area and commute to somewhere else in Roseville. That person would be represented as trips between the WRSP and Roseville. The same holds true if just the Remainder Area were built. However, if the whole SOI Amendment Area were built, (WRSP plus Remainder Area), a person might live in the WRSP, Area and work in the Remainder Area, or vice versa. That person would, therefore, no longer be represented as trips between the WRSP or Remainder Areas and Roseville. Providing a mixture of jobs and housing can lead to a reduction in trips and trip lengths. The model takes these factors into account and, therefore, does not merely layer trips based on additional development. Redistribution of trips causes changes in volumes throughout the model network, including both increases and decreases in volume on roadways.

Analysis Scenarios

The traffic associated with development of SOI amendment has been evaluated under existing and future conditions. The City's level of service policy focuses on conditions under full build-out of all vacant land within the City and 2020 "market levels" of development in the rest of the region. Therefore, the evaluation of the traffic impacts in this section focuses on "2020/build-out" conditions with and without the WRSP and SOI Amendment Area. The following scenarios of development are addressed in this section.

- 2020/Build-out Conditions
  - Without Project
  - Plus build-out of WRSP
  - Plus build-out of full SOI Amendment Area

The following cumulative conditions and scenarios are described and evaluated in Chapter 5, CEQA Considerations:

- 2020 Conditions with Kaiser Medical Center Expansion
  - Without Project with Kaiser Medical Center Expansion
  - Existing conditions with build-out of WRSP
  - Existing conditions with build-out of full SOI Amendment Area
- 2020 Conditions with Construction of Placer Parkway

In addition, a qualitative analysis of future roadway conditions with the addition of two projects that are expected to build-out well after 2020 (Placer Vineyards and South Sutter Specific Plan) and two

additional projects that have been discussed, but not formally proposed (Placer Ranch and a university-oriented project west of the SOI Amendment Area).

The following conditions and scenarios are addressed in Appendix Q and are provided for informational purposes, but are not considered to be reasonably likely to occur.

- Existing Conditions
  - Existing conditions with build-out of WRSP
  - Existing conditions with build-out of full SOI Amendment Area

Development Assumptions for the 2020 Build-out Conditions

The City's recently adopted CIP Update and modified level of service standard considers traffic levels expected to occur under 2020 development levels, which was defined as build-out of currently entitled City land plus some potential redevelopment of properties within the City's Downtown area and 2020 market rate development outside of the City. The build-out development forecasts for each of Roseville's planning areas are summarized in Table 4.3-5.

Table 4.3-5 City of Roseville Build-out Development Forecasts by Plan Area

Planning Area	Dwelling Units		1,000 Sq Ft (KSF)		
	SF	MF	Retail	Office	Industrial
Del Webb SP	3,223	100	89.3	0.0	0.0
Highland Reserve North SP	1,188	688	1,733.3	0.0	0.0
Infill Area	12,582	5,926	5,017.3	2,871.6	12,491.4
North Central Roseville SP	2,171	2,263	5,088.8	2,761.6	797.2
Northeast Roseville SP	616	795	2,603.4	4,795.1	0.0
North Industrial Area	351	0	0.0	0.0	6,389.4
North Roseville SP	4,293	845	500.1	184.0	0.0
Northwest Roseville SP	6,691	2,391	1,122.9	537.1	97.1
Southeast Roseville SP	1,804	1,671	792.9	1,131.7	0.0
Stoneridge SP	2,253	629	386.5	59.3	0.0
Total	35,172	15,308	17,334.5	12,340.3	19,775.1

SOURCE: DKS Associates 2003

Development assumptions outside the City of Roseville, particularly in adjacent communities, also have an important impact on the forecasts of travel patterns within the City. The CIP Update has incorporated the latest 2020 development forecasts for each jurisdiction in Placer County. Build-out of Area 1 of the proposed Placer Vineyards project in West Placer County was assumed to be developed by 2020 and thus was included in this development scenario. Outside of Placer County, the CIP Update used 2020 land use and trip generation estimates prepared by the Sacramento Area Council of Governments (SACOG) for the 1999 Metropolitan Transportation Plan (MTP), except in South Sutter County where build-out of

Phase 1 of the South Sutter County Specific Plan was assumed. Table 4.3-6 presents the 2020 assumptions for land uses in other jurisdictions.

Table 4.3-6 Roseville Model Assumptions: 2020 Land Uses in Other Areas

Region	Single Family DU	Single Family DU	Age Restricted DU	Total Residential DU	Commercial KSF	Office KSF	Industrial KSF
Rocklin	15,872	5,742	1,172	22,786	4,810	2,792	3,323
Lincoln	11,225	3,073	6,919	21,217	2,262	1,539	7,163
Placer Vineyards	7,006	651	0	7,657	920	288	0
Sunset Industrial	5	0	0	5	495	822	5,046
Granite Bay	8,974	888	0	9,862	1,043	253	103
Sunset Industrial	182	80	0	262	3	1	0
Lincoln/Sunset	436	56	0	492	1	94	335

SOURCE: DKS Associates 2003

Trip Generation

SOI Amendment Area

The trip generation for the full SOI Amendment Area is a combination of trip generation for the WRSP and Remainder Area, as shown in Table 4.3-7 and Table 4.3-8 and as described below.

Table 4.3-7 Estimated Trip Generation West Roseville Specific Plan

Land Use	Units		Daily Trip Ends per Unit	Daily Trips
Single-Family Residential	5,866	DU	9	52,794
Multi-Family Residential	1,844	DU	6.5	11,986
Age Restricted Residential	720	DU	3.3	2,376
Subtotal Residential	8,430	DU		67,156
Retail	710.0	KSF	35	24,851
Office	60.1	KSF	17.7	1,064
Industrial	1,252.4	KSF	7.6	9,518
Church	73.2	KSF	9.3	681
Subtotal – Private Non-residential	2,157	KSF		37,658
Public/Quasi Public	61.8	KSF	25	1,545
Elementary School[1]	2,400	Students	0.8	1,920
Middle School[2]	1,000	Students	0.9	900
High School[3]	1,800	Students	1.2	2,160
Parks	248.4	Acres	2.2	546
Subtotal – Public Uses				7,065
			Initial Estimate of Total Daily Vehicle Trip Ends Generated by WRSP	110,341

NOTES:
DU = dwelling unit and KSF = 1,000 square feet
1. Assumes 600 students per elementary school
2. Assumes 1,000 per middle school
3. Assumes 1,800 students per high school

Land use based on WRSP described in the Notice of Preparation, which vary slightly from the WRSP described in Chapter 2 of this Draft EIR. The resulting difference in number of trips is a less-than-one percent increase.

SOURCE: DKS Associates 2003

Table 4.3-8 Estimated Trip Generation

Land Use	Units		Daily Trip Ends per Unit	Daily Trip Ends
Remainder Area				
Single-Family Residential	5,916	DU	9	53,244
Multi-Family Residential	1,487	DU	6.5	9,666
Subtotal—Residential	**7,403**	**DU**		**62,910**
Retail	589	KSF	35	20,612
Office	647	KSF	17.7	11,450
Subtotal—Private Nonresidential	**1,236**	**KSF**		**32,060**
Elementary School[1]	2,400	Students	0.8	1,920
Middle School[2]	1,000	Students	0.9	900
Parks	496	Acres	2.2	1,090
Subtotal—Public Uses				**3,910**
Initial Estimate of Total Daily Vehicle Trip Ends from Remainder Area				98,882
Initial Estimate of Total Daily Vehicle Trip Ends Generated by WRSP[4]				110,341
Initial Estimate of Total Daily Vehicle Trip Ends of Full SOI Amendment				209,223

NOTES:
DU = dwelling unit and KSF = 1,000 square feet
1. Assumes 600 students per elementary school
2. Assumes 1,000 per middle school
3. Assumes 1,800 students per high school
4. Refer to Table 4.3-7 for trip generation of WRSP
The land use assumptions for the Remainder Area are identical to those presented in both the Notice of Preparation and Chapter 2 of this Draft EIR.

SOURCE: DKS Associates 2003

The estimate of the trip generation of the full SOI Amendment Area is about 209,223 daily vehicle trip ends. Note that one vehicle trip contains two trip ends, and origin trip end and a destination trip end. Of these trip ends, approximately 134,000 vehicles would enter or exit the SOI Amendment Area on a daily basis and use roadways outside of the SOI Amendment Area. The remaining trip ends are represented by trips beginning and ending within the SOI Amendment Area.

West Roseville Specific Plan

The WRSP trip generation was estimated with the trip generation rates that were used in developing Roseville's CIP, which are generally consistent with those in the Institute of Transportation Engineers' (ITE) publications on trip generation, as shown in Table 4.3-7. The estimate of the WRSP's trip generation is about 110,341 daily trip ends. Of these trip ends, approximately 71,000 vehicles would enter or exit the WRSP area on a daily basis and use roadways outside the WRSP area. The remaining trip ends are represented by trips beginning and ending within the WRSP area.

Remainder Area

The trips generated by build-out of the Remainder Area were estimated with the trip generation rates that were used in developing Roseville's CIP, as shown in Table 4.3-8. The estimate of the Remainder Area's trip generation is about 98,882 daily trip ends. Of these trip ends, approximately 63,000 vehicles would enter or exit the Remainder Area on a daily basis and use roadways outside the Remainder Area. The remaining trip ends are represented by trips beginning and ending within the Remainder Area.

Roadway Improvement Assumptions

SOI Amendment

The analysis of the full SOI amendment scenario is based on the assumption that the roadways that are part of the development of the full SOI amendment are added to the 2020 CIP roadway network. This includes the roadway network proposed for the WRSP (shown in Figure 2-7 [West Roseville Specific Plan Major Roadway/Circulation Plan] in Chapter 2 [Project Description]) and a potential roadway system within the Remainder Area. Although a specific roadway network has not been defined, an assumed roadway system for that area was provided by the City and is shown in Figure 2-7 in Chapter 2. It is assumed that a similar backbone road system would be provided as part of any future development proposal for the Remainder Area.

The assumed roadway network within the Remainder Area consists of the extension of the north/south arterial north of Baseline Road near the terminus of Watt Avenue to meet up with the proposed West Side Drive, the extension of Market Street from Baseline Road to the proposed Village Green Drive, and Streets A Northwest and B Southeast connecting Fiddyment Road with West Side Drive. As these roadways are speculative in nature, detailed cross-sections and functional classifications have not been developed. Roadway lanes have been assumed so that traffic forecasts could be prepared. For forecasting purposes, the north/south Arterial/West Side Drive and Dyer Road are assumed to be four lanes and Village Green Drive and the two unnamed east/west streets are assumed to be two lanes within the Remainder Area. These potential roadways are shown in Figure 4.3-7 (Local Roadway Network WRSP and SOI Remainder Area).

It was assumed that with full development of the SOI Amendment Area, Fiddyment Road from Pleasant Grove Boulevard to Baseline Road would be annexed into the City of Roseville and would not be part of Placer County's roadway system. Fiddyment Road is assumed to be four lanes from Baseline Road to North of Pleasant Grove Boulevard and four lanes from the north end of Pleasant Grove Boulevard at the north end of the project site. Baseline Road is assumed to be six lanes from Watt Avenue to Fiddyment

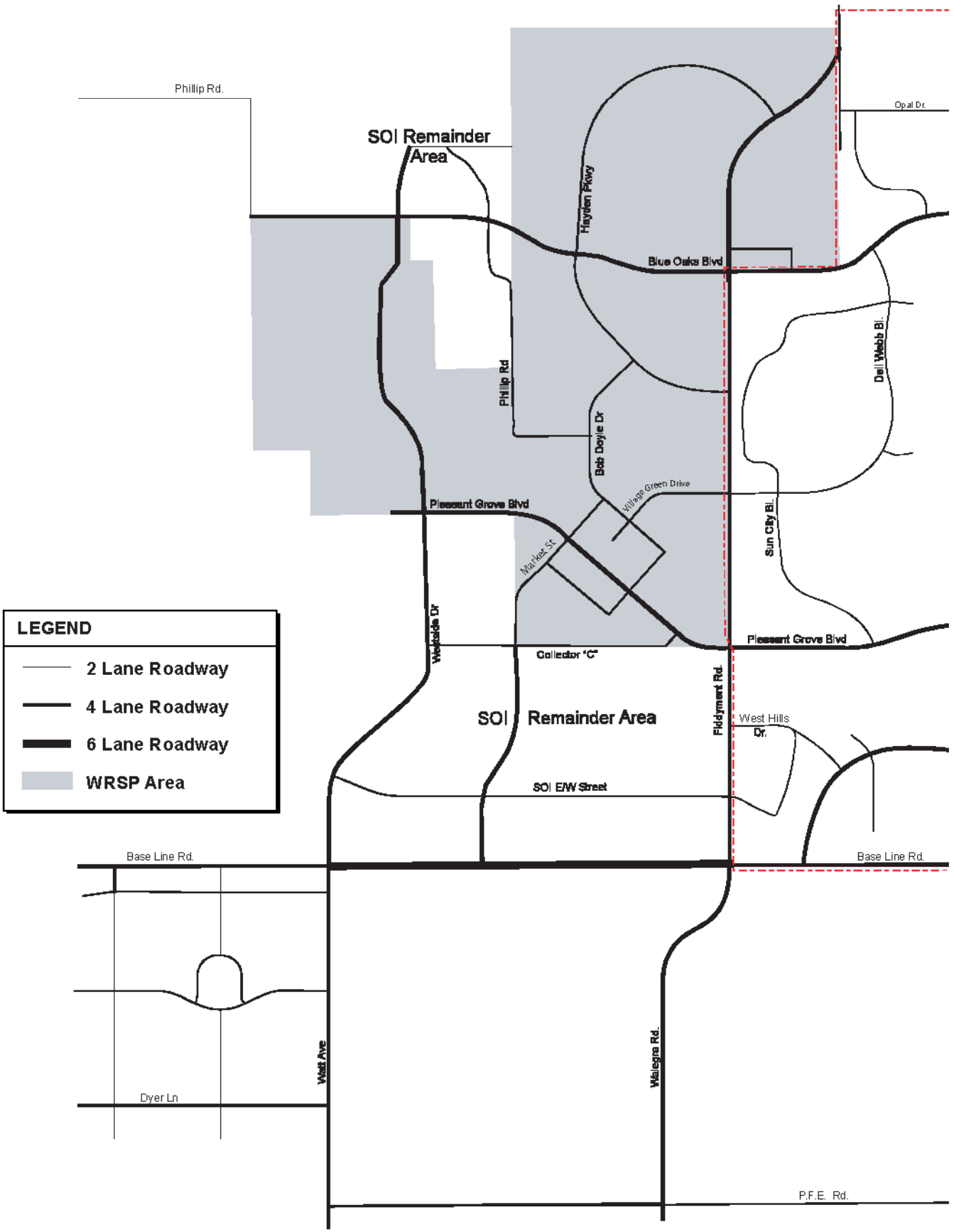


FIGURE **4.3-7**

Local Roadway Network WRSP and SOI Remainder Area

Not to Scale

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Source: DKS Associates

City of Roseville

EIP ASSOCIATES

Road. For the remainder of the region, the roadway improvements assumed under the 2020 Without Project scenario were assumed.

West Roseville Specific Plan

The analysis of the WRSP scenario is based on the assumption that the roadways that are proposed for the WRSP are added to the 2020 CIP roadway network. The roadway network shown in the Project Description (see Figure 2-7 in Chapter 2, Project Description) was assumed to be implemented consistent with the cross sections shown in the West Roseville Specific Plan (2003).

These roadways include the extension of Blue Oaks Boulevard and Pleasant Grove Boulevard from Fiddyment Road to the western portion of the WRSP Area. Blue Oaks would be extended as a four-lane arterial, but right-of-way would be reserved for six lanes. Pleasant Grove would be extended as a four-lane arterial from its current terminus in a northwest direction through the proposed Village Center to West Side Drive. West of West Side Drive, Pleasant Grove Boulevard will be constructed as a two-lane Collector roadway with right-of-way reserved for possible expansion to four-lanes. West Side Drive would be constructed as a four-lane arterial within the WRSP Area, but right-of-way would be preserved for six lanes, as this roadway could provide access to the proposed Placer Parkway. Two-lane collector roadways within the WRSP Area would include Hayden Parkway, Village Green Drive, Bob Doyle Drive, Village Green Drive, and Phillip Road. A portion of the existing Phillip Road would be abandoned within the WRSP site and would be realigned as a two-lane modified collector as described in the Project Description. Village Green Drive would meet Fiddyment Road at its current intersection with Del Webb Boulevard. These potential roadways are shown in Figure 4.3-7. As shown in Figure 2-13 (West Roseville Specific Plan Blue Oaks Alignment [Alternative 1]) and Figure 2-14 (West Roseville Specific Plan Blue Oaks Alignment [Alternative 2]) in Chapter 2 (Project Description), there are two potential alignments for Blue Oaks Boulevard north of the City-owned property. The first alignment would transect several parcels to the south. As an alternative, the road could be shifted to the north. Because these alignments would provide the same connections, they would have the same operational effects on traffic. Therefore, they are not evaluated separately in the traffic analysis.

Existing roadways adjacent to the WRSP were assumed to have geometries consistent with the Roseville CIP. Improvements to existing roadways (beyond those in the recently adopted CIP) assumed to be in place include widening Fiddyment Road to four lanes directly adjacent to the project site (from the northern boundary of the project to Pleasant Grove Boulevard). For the remainder of the region, the roadway improvements assumed under the 2020 Without Project scenario were assumed.

Roadway Analysis

The City of Roseville's LOS policy focuses on the operations of its signalized intersections during the P.M. peak hour because the P.M. peak hour typically represents the highest traffic period of the day. Placer and Sutter counties and the City of Rocklin use a combination of peak hour intersection analysis, plus roadway segment analysis based on daily traffic volumes, to assess their roadway networks. Table 4.3-9 shows the daily volume thresholds that were used in the roadway segment analysis for those jurisdictions.

Table 4.3-9 Roadway Segment Level of Service Thresholds

Facility Type	Average Daily Traffic Volume Threshold				
	LOS A	LOS B	LOS C	LOS D	LOS E
Two-Lane Collector	9,000	10,700	12,000	13,500	15,000
Two-Lane Arterial	10,800	12,600	14,400	16,200	18,000
Four-Lane Arterial	21,600	25,200	28,800	32,400	36,000
Six-Lane Arterial	32,400	37,800	43,200	48,600	54,000
Four-Lane Freeway	37,600	52,800	68,000	76,000	80,000
Six-Lane Freeway	56,400	79,200	102,000	114,000	120,000
Eight-Lane Freeway	75,200	105,600	136,000	152,000	160,000

SOURCE: DKS Associates 2003

2020 Without Project Conditions

Roseville's Capital Improvement Program

To meet the transportation needs of existing and anticipated development in the City of Roseville, as well as regional growth that impacts the City's roadway system, a detailed transportation analysis and EIR was undertaken in 2002 as part of an update of Roseville's Capital Improvement Program (CIP). The General Plan calls for the CIP to be updated a minimum of every five years or with the approval of a significant development. The CIP has been amended several times over the last ten years as specific plans have been approved. The WRSP is a significant development and its approval would clearly trigger the need to update the City's CIP.

The CIP EIR analyzed future traffic impacts and roadway needs based on build-out of currently entitled land within the City plus some potential redevelopment of properties within the City's Downtown area and 2020 market rate development outside of the City. As part of that update, the EIR also evaluated impacts associated with a revised roadway level of service policy. That revised policy calls for the City to maintain a LOS C standard at 70 percent of all signalized intersections in the City during the P.M. peak hour through year 2020.

CIP Funding Sources

The City's CIP, which was initially adopted in 1989, defines roadway improvements that would be needed to meet the City's level of service policy through year 2020.The total cost of these roadway improvements is estimated at $185 million. The City of Roseville has adopted a Traffic Mitigation Fee that, in conjunction with other identified funding sources, will fully fund these improvements. As noted in the previous section, the roadway improvements contained in the CIP have been identified to mitigate future traffic impacts resulting from build-out of existing entitled land within the City and 2020 growth outside of the City. The City's traffic impact fee program collects funds from new development in the City to finance these improvements. Fees are calculated separately for each of the City's specific plan areas, the North Industrial Area and the Infill Area. The fees vary by land use type in relationship to the relative traffic generated by each type of development. The intent of the fee program is to provide an equitable means of ensuring that future development contributes its fair share to roadway improvements and fully mitigates for their traffic impacts so that the City's General Plan Circulation Policies and quality of life can be maintained. The WRSP and any development in the Remainder Area would be obligated to participate in the CIP on a "fair share" basis.

In addition to traffic impact fees, funding for some CIP improvements will be derived from a number of other identified sources. These include developer funded projects, assessment districts, redevelopment funds, and state and regional sources. Traffic impact fees are projected to fund $168 million, or 91 percent, of the total improvement costs. Since 1990, about $70 million, or 38 percent, of the roadway improvements identified as being needed by year 2015 have been constructed.

In addition to the City's CIP, four freeway interchanges on SR-65 will be funded through separate traffic impact fees through the Highway 65 Joint Powers Authority (JPA). The benefit area that contributes to the Highway 65 JPA includes the entire cities of Roseville and Rocklin, and the Sunset Industrial Area of Placer County.

The following information is intended to summarize traffic conditions under 2020 conditions without the SOI amendment (WRSP and Remainder Area). This condition is defined as the latest development forecasts for the City of Roseville's 2020 CIP, which assumes build-out of all land uses in the City plus the roadway improvement projects needed to meet the City's level of service standards. This discussion, which describes the roadway needs analysis under the new 2020 CIP, will be helpful to the reader when reviewing the following section on impacts associated with the WRSP or Remainder Area, because the impact analysis focuses on the incremental differences between the 2020 Without Project scenario and the 2020 Plus WRSP or Full SOI Amendment.

The 2020 CIP analysis identified acceptable and feasible roadway improvements that would meet the level of service policy in the City's General Plan. To that end, the 2020 CIP includes a large number of roadway widening and intersection improvements that would be needed under full build-out of all vacant land in the City. The 2020 CIP roadway needs were based on a detailed analysis of afternoon peak hour traffic operations at 144 existing and planned signalized intersections throughout the City.

Since the CIP was adopted in September 2002, the City has also found that traffic signals will be installed at the following six intersections in addition to those assumed in the CIP analysis:

- Fairway Drive and Target Entrance
- Lead Hill Boulevard and Wal-Mart Entrance
- Pleasant Grove Boulevard and Wal-Mart Entrance
- Roseville Parkway and Trestle Drive
- Blue Oaks Boulevard and HP Road A
- Blue Oaks Boulevard and HP Road B

These six intersections will increase the 144 existing and planned signalized intersections assumed in the 2020 CIP to 150 under the 2020 Without Project scenario.

Outside the City of Roseville, the 2020 CIP analysis assumed that all of the 2020 transportation improvements contained in the Metropolitan Transportation Plan (MTP) would be implemented. One of those assumed improvement in the CIP analysis was the widening of Baseline Road by Placer County from two to four travel lanes between Fiddyment Road and the Sutter County line by 2020. Since the CIP was adopted in September 2002 Placer County has informed the City that under the County's CIP, Baseline Road will be widened to six lanes between Fiddyment Road and Watt Avenue by 2020. The CIP also assumed that Phase 1 of the proposed Placer Vineyards project would be developed by 2020. The Placer Vineyards project proposes to widen Baseline Road adjacent to that development, which would result in six lanes for a portion of Baseline Road west of Watt Avenue. Incorporating this revised roadway improvement assumption into the 2020 Without Project scenario required revised travel forecasts from those used to evaluate the 2020 CIP. Since the CIP was adopted in September 2002, it was also found that there were a few minor errors in the travel demand model's roadway network and land use inputs. These errors were also corrected in the 2020 Without Project Scenario. The CIP does not assume any development associated with the De La Salle/AKT University proposal.

These changes have resulted in changes to the without project scenario as noted below. Additional mitigation was identified at the intersection of Judah Street and Douglas Boulevard that could improve

traffic operations under 2020 Without Project scenario from LOS D to LOS C conditions. This simple improvement involves restriping the southbound Judah Street approach to that intersection to allow both a left-turn lane and a left/through/right lane.

Daily and P.M. peak hour volumes were estimated by the City's travel demand model under the revised 2020 assumptions for roadways throughout the City of Roseville and in surrounding communities. The daily traffic volumes within the City under the 2020 Without Project scenario are shown in Figure 4.3-8 (Daily Traffic Volumes Under 2020 No Project Conditions).

Table 4.3-10 provides the estimated levels of service at all of the City's existing and planned signalized intersections under the 2020 Without Project scenario. As shown in Table 4.3-11, this scenario would provide LOS C or better conditions for all hours of the day at 107 of the City's 150 major signalized intersections. This represents 71.3 percent of the City's signalized intersections. Of the other 43 intersections, 23 would operate at LOS D, 14 would operate at LOS E and 6 would operate at LOS F. The following intersections have changed LOS based on the minor network and land use changes implemented since the CIP was adopted and the additional mitigation measure that was identified at the intersection of Judah and Douglas.

- Harding Boulevard/Douglas Boulevard — LOS E (1.00) to LOS F (1.04)
- Galleria/Antelope Creek — LOS C (0.81) to LOS D (0.82)
- Washington Boulevard/Pleasant Grove Boulevard — LOS D (0.90) to LOS E (0.91)
- Taylor Road/Roseville Parkway — LOS C (0.81) to LOS D (0.82)
- Sierra Gardens/Douglas Boulevard — LOS D (0.85) to LOS C (0.79)
- Douglas/Judah — LOS D (0.89) to LOS C (0.72)

Table 4.3-10 City of Roseville Signalized Intersections Levels of Service 2020 Without Project Scenario

Roadway			
North/south	East/west	LOS	V/C
Tiger/Center	Atlantic Street	C	0.72
Wills	Atlantic Street	C	0.76
Yosemite	Atlantic Street	D	0.84
Baseline Road	Junction Boulevard	A	0.58
Del Webb Boulevard	Blue Oaks Boulevard	A	0.25
Diamond Creek	Blue Oaks Boulevard	A	0.57
Fiddyment Road	Blue Oaks Boulevard	A	0.32
Prairie Woods	Blue Oaks Boulevard	A	0.46
SR-65 NB Off	Blue Oaks Boulevard	B	0.68
Washington Boulevard	Blue Oaks Boulevard	B	0.66
Woodcreek Oaks	Blue Oaks Boulevard	C	0.71
Champion Oaks	Cirby Way	C	0.78

Table 4.3-10 City of Roseville Signalized Intersections Levels of Service 2020 Without Project Scenario

Roadway		LOS	V/C
North/south	East/west		
Melody	Cirby Way	C	0.72
Northridge/Lindsay	Cirby Way	B	0.62
Oak Ridge Drive	Cirby Way	C	0.71
Orlando/Marlin	Cirby Way	C	0.75
Parkview	Cirby Way	A	0.55
San Simeon	Cirby Way	B	0.68
Vernon Street	Cirby Way	E	0.98
Eureka Road	Douglas Boulevard	D	0.87
Folsom Road	Douglas Boulevard	C	0.72
Harding Boulevard	Douglas Boulevard	F	1.04
I-80 WB Off	Douglas Boulevard	C	0.81
Judah	Douglas Boulevard	C	0.72
Keehner/Donner	Douglas Boulevard	C	0.78
Park	Douglas Boulevard	A	0.56
Riverside Avenue	Douglas Boulevard	E	0.95
Rocky Ridge Drive	Douglas Boulevard	D	0.88
Roseville Parkway	Douglas Boulevard	C	0.81
Santa Clara Drive	Douglas Boulevard	D	0.90
Sierra College	Douglas Boulevard	D	0.88
Sierra Gardens	Douglas Boulevard	C	0.79
Target	Douglas Boulevard	B	0.65
Eureka Road	Deer Valley	B	0.67
Eureka Road	Lead Hill Boulevard	D	0.89
Ashland	Eureka Road	A	0.51
Central Park	Fairway Drive	A	0.55
Five Star	Fairway Drive	A	0.45
Home Depot	Fairway Drive	B	0.68
Fiddyment Road	Baseline Road	D	0.86
Fiddyment Road	Opal Drive	A	0.40
Fiddyment Road	Del Webb Boulevard	A	0.25
Foothills Boulevard	Albertsons	A	0.55
Foothills Boulevard	Atkinson Road	A	
Foothills Boulevard	Blue Oaks Boulevard	C	0.81
Foothills Boulevard	Cirby Way	E	0.94
Foothills Boulevard	H.P. South	C	0.78
Foothills Boulevard	Junction Boulevard	D	0.86
Foothills Boulevard	Village Green Drive/Baseline	D	0.86
Foothills Boulevard	McAnally	C	0.79
Foothills Boulevard	Mistywood/NEC	C	0.78
Foothills Boulevard	Pleasant Grove	D	0.87
Foothills Boulevard	Rand/Pilgrims	B	0.70
Foothills Boulevard	Roseville Pkwy/HP	C	0.74
Foothills Boulevard	Vineyard Road	D	0.89
Galleria	Antelope Creek	D	0.82
Galleria	Berry	D	0.85
Harding Boulevard	Estates Road	E	0.94
Harding Boulevard	Lead Hill Boulevard	E	0.92
Harding Boulevard	Roseville Square	A	0.50

Table 4.3-10 City of Roseville Signalized Intersections Levels of Service 2020 Without Project Scenario

Roadway			
North/south	East/west	LOS	V/C
Harding Boulevard	Wills Road	D	0.89
I-80 WB On	Atlantic Street	C	0.75
Americana	Junction Boulevard	A	0.38
Country Club	Junction Boulevard	A	0.60
Park Regency	Junction Boulevard	A	0.40
Porter	Junction Boulevard	A	0.58
Revere	Junction Boulevard	A	0.51
Stonecrest	Junction Boulevard	A	0.37
Lincoln Street	Oak Street	C	0.75
Country Club	Pleasant Grove	A	0.57
Fiddyment Road	Pleasant Grove	A	0.59
Hallisey	Pleasant Grove	B	0.66
SR-65 NB Off	Pleasant Grove	A	0.56
SR-65 SB Off	Pleasant Grove	A	0.52
Sun City Boulevard	Pleasant Grove	A	0.44
Washington Boulevard	Pleasant Grove	E	0.91
Woodcreek Oaks	Pleasant Grove	B	0.69
Pleasant Grove	Fairway Drive	C	0.75
Pleasant Grove	Highland Drive	A	0.51
Roseville Pkwy	Pleasant Grove	E	0.95
Riverside Avenue	Cirby Way	E	0.97
Riverside Avenue	Darling Way	D	0.90
Riverside Avenue	I-80 WB Off ramp	A	0.44
Rocky Ridge Drive	Cirby Way	B	0.67
Rocky Ridge Drive	Eureka Road	C	0.71
Rocky Ridge Drive	Lead Hill Boulevard	D	0.89
Rocky Ridge Drive	Maidu	B	0.69
Rocky Ridge Drive	McLaren	B	0.66
Rocky Ridge Drive	Professional	C	0.73
Roseville Parkway	Alexandria	A	0.44
Roseville Parkway	Eureka Road	C	0.73
Roseville Parkway	Lead Hill Boulevard	B	0.61
Roseville Parkway	Olympus Drive	D	0.87
Roseville Parkway	Rocky Ridge Drive	A	0.59
Roseville Parkway	Secret Ravine	B	0.63
Roseville Parkway	Village/Slade	B	0.61
Creekside	Roseville Parkway	C	0.73
Galleria	Roseville Parkway	F	1.13
Gibson	Roseville Parkway	C	0.78
North Cirby	Roseville Parkway	C	0.71
Old Auburn Road	Roseville Parkway	B	0.61
Reserve Drive	Roseville Parkway	E	0.96
Sierra College	Roseville Parkway	D	0.83
Taylor Road	Roseville Parkway	D	0.82
Washington Boulevard	Roseville Parkway	C	0.81
West Mall	Roseville Parkway	B	0.69
Sierra College	Eureka Road	C	0.77
Sierra College	Indigo Creek	C	0.74

Table 4.3-10 City of Roseville Signalized Intersections Levels of Service 2020 Without Project Scenario

Roadway			
North/south	East/west	LOS	V/C
Sierra College	Old Auburn Road	C	0.78
Sierra College	Olympus Drive	B	0.71
Sierra College	Secret Ravine	A	0.55
South Cirby Way	Old Auburn Road	D	0.87
Stanford Ranch	Fairway Drive	B	0.63
Stanford Ranch	Five Star Boulevard	C	0.80
Stanford Ranch	Highlands Drive	B	0.61
Stanford Ranch	SR-65 NB On	B	0.68
Stanford Ranch/Galleria	SR-65 SB On	C	0.73
Sunrise Avenue	Automall	C	0.73
Sunrise Avenue	Cirby Way	F	1.09
Sunrise Avenue	Coloma Way	F	1.09
Sunrise Avenue	Douglas Boulevard	E	0.99
Sunrise Avenue	Eureka Road	F	1.09
Sunrise Avenue	Frances	B	0.68
Sunrise Avenue	Kensington	D	0.88
Sunrise Avenue	Lead Hill Boulevard	F	1.02
Sunrise Avenue	Oak Ridge Drive	E	0.95
Sunrise Avenue	Roseville Pkwy	B	0.65
Sunrise Avenue	Sierra Gardens	D	0.85
Sunrise Avenue	Suntree	B	0.62
Taylor Road	Eureka Road	E	0.94
Grant Street	Vernon Street	E	0.91
Judah	Vernon Street	A	0.58
Lincoln Street	Vernon Street	D	0.90
Washington Boulevard	Diamond Oaks	B	0.69
Washington Boulevard	Hallisey	A	0.46
Washington Boulevard	Industrial Avenue	B	0.61
Washington Boulevard	Junction Boulevard	C	0.80
Washington Boulevard	Village Green Drive	E	0.98
Washington Boulevard	Oak Street	A	0.58
Washington Boulevard	Sawtell	C	0.74
Woodcreek Oaks	Baseline Road	C	0.74
Woodcreek Oaks	Canevari Road	A	0.56
Woodcreek Oaks	Junction Boulevard	A	0.56
Woodcreek Oaks	McAnally	B	0.64
Target Entrance	Fairway Drive	C[2]	
WalMart Entrance	Lead Hill Boulevard	C[2]	
Pleasant Grove Boulevard	WalMart Entrance	C[2]	
Roseville Parkway	Trestle Drive	C[2]	
HP Road A	Blue Oaks Boulevard	C[2]	
HP Road B	Blue Oaks Boulevard	C[2]	

NOTES:

Intersections operating at LOS D or worse conditions are shaded.

Intersection that the City intends to signalize and ones that would have relatively low "minor street" volumes that would clearly allow LOS C or better conditions at build-out of the City.

SOURCE: DKS Associates 2002

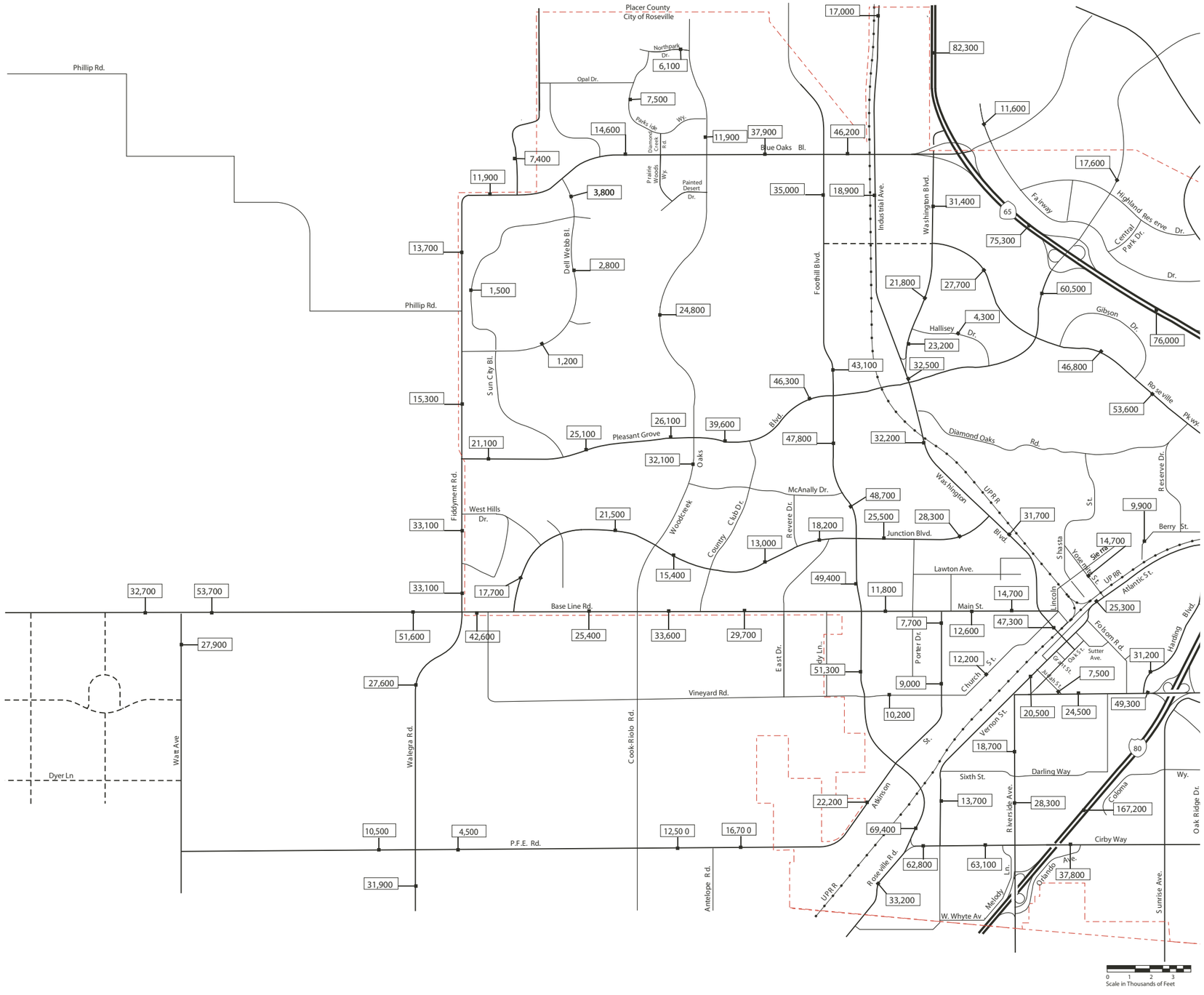


FIGURE **4.3-8**

Daily Traffic Volumes under 2020 No Project Conditions

Source: DKS Associates

City of Roseville

10659-00

EIP ASSOCIATES

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Table 4.3-11 City of Roseville Number of Intersections Operating at Los C or Better 2020 with Existing 2020 CIP

Level of Service	Without Project		SOI Amendment Area		WRSP	
LOS A–C	107	71.3%	117	70.1%	112	70.9%
LOS D	23	15.3%	25	15.0%	22	13.9%
LOS E	14	9.3%	16	9.6%	17	10.8%
LOS F	6	4.0%	9	5.4%	7	4.4%
Total Intersections	***150***	***100%***	***167***	***100%***	***158***	***100%***

SOURCE: DKS Associates 2003

Impacts

Impacts and mitigation measures for the SOI amendment, including the WRSP and Remainder Area are provided below. Because the Remainder Area is not likely to develop independently without the WRSP, the impacts of the Remainder Area are not considered separately from the SOI Amendment Area.

IMPACT 4.3-1:	**INCREASED TRAFFIC ON CITY OF ROSEVILLE ROADWAYS.**		
Applicable Policies and Regulations:	General Plan Policy CB-1		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant	Significant
Mitigation Measures:	MM 4.3-2 (Pay fair share of identified improvements) (WRSP) MM 4.3-1 (Fair share policies) (Remainder Area)	MM 4.3-2 (Pay fair share of identified improvements)	MM 4.3-1 (Fair share policies)
Significance after Mitigation:	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

SOI Amendment/Remainder Area

The City's travel demand model was used to estimate the change in daily and P.M. peak hour traffic volumes on roadways throughout the City of Roseville and in surrounding communities due to development of the SOI amendment under 2020 conditions. Daily traffic under 2020 Without Project scenario are shown in Figure 4.3-8. The daily traffic volumes within the City under the 2020 Plus SOI Amendment scenario are shown in Figure 4.3-9 (Daily Traffic Volumes Under 2020 Plus SOI Amendment Area).

It must be noted that the traffic volume forecasts are not based on a simple layering/adding of assumed project-generated traffic volumes onto the 2020 Without Project traffic volumes. Rather, the City's travel

demand model is used to predict how travel patterns would change if assumed land uses are added to 2020 land uses. The travel model redistributes trips and can cause traffic on some roadways to decrease and cause changes in "critical" traffic movements at intersections, sometimes at intersections some distance from the SOI Amendment Area.

An intersection level of service analysis was conducted for this scenario. This analysis includes all signalized intersections within the City of Roseville assumed under the Without Project scenario plus signals that would likely be warranted on or adjacent to the SOI Amendment Area due to development of the full SOI amendment. A planning-level signal warrant analysis indicates the following 17 intersections would require signalization under the 2020 Plus Full SOI amendment scenario:

- Within SOI amendment
  - Fiddyment Road and Hayden Parkway South
  - Fiddyment Road and Hayden Parkway North
  - Fiddyment Road and SOI East/West Street
  - Fiddyment Road and Westhills Drive
  - Blue Oaks Boulevard and Hayden Parkway
  - Blue Oaks Boulevard and West Side Drive
  - Blue Oaks Boulevard and Phillip Road
  - Blue Oaks Boulevard and "N/S" Street
  - Pleasant Grove Boulevard and Village Green Drive
  - Pleasant Grove Boulevard and Bob Doyle Drive
  - Pleasant Grove Boulevard and Collector C
  - Pleasant Grove Boulevard and West Side Drive
  - Baseline Road and Watt Avenue
  - Baseline Road and Market Street
  - Market Street and Collector C
  - Market Street and SOI E/W Street
  - Watt Avenue and Collector C

It was assumed that with full development of the SOI Amendment Area, Fiddyment Road from Pleasant Grove Boulevard to Baseline Road would be annexed into the City of Roseville. The level of service analysis indicates that Fiddyment Road from north of Pleasant Grove Boulevard to Baseline Road would require widening to six lanes with development of the Full SOI Amendment Area and this widening was reflected in the travel demand forecasts for the Full SOI amendment scenario.

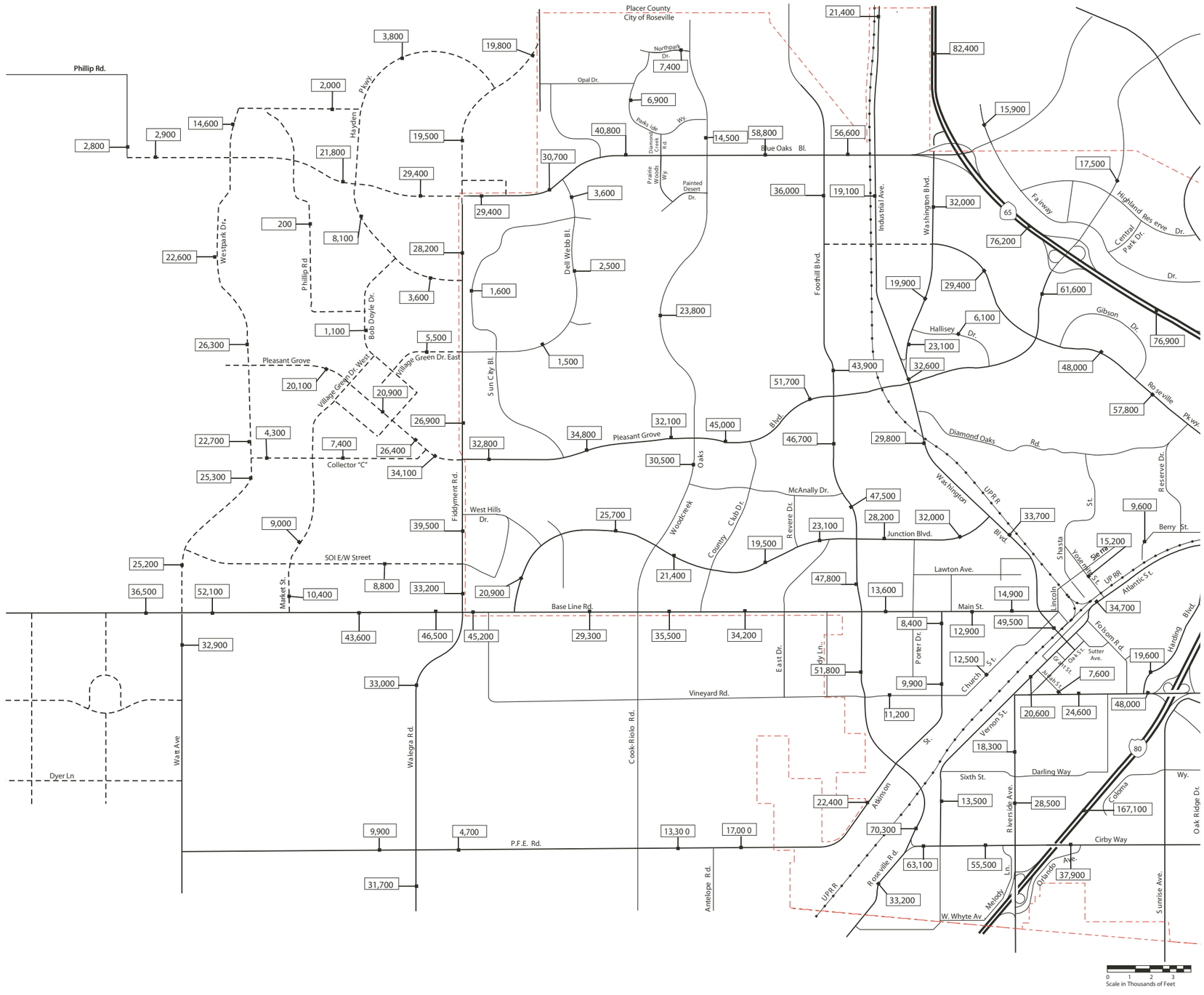


FIGURE **4.3-9**

Daily Traffic Volumes under 2020 Plus SOI Amendment Area

10659-00

***Source*:** DKS Associates

City of Roseville

EIP ASSOCIATES

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Table K-2 in Appendix K provides the estimated levels of service for all signalized intersections in the City of Roseville under 2020 Without Project and 2020 Plus SOI Amendment conditions. This table includes new intersections that would warrant signals under 2020 Plus SOI Amendment conditions.

Table 4.3-11 shows the number and percentage of City intersections that would operate at LOS C or better under both Without Project and 2020 Plus Full SOI amendment conditions assuming no additional roadway improvements beyond those included in the City's current CIP program. Under Full SOI amendment condition 117 signalized intersections would operate at LOS C or better. These represent 70.1 percent of the 167 total signalized intersections.

Table 4.3-12 provides the estimated levels of service for all signalized intersections in the City of Roseville impacted under Full SOI amendment conditions, including intersections that would warrant signals.

Table 4.3-12 City of Roseville Intersections with Significant Level of Service Impacts 2020 with Existing 2020 CIP

Roadway		Without Project		SOI Amendment Area		WRSP	
North/south	East/west	LOS	V/C	LOS	V/C	LOS	V/C
Diamond Creek	Blue Oaks Boulevard	A	0.57	F	1.08	E	0.92
Fiddyment Road	Baseline Road	D	0.86	E	0.96	E	0.91
Foothills Boulevard	Blue Oaks Boulevard	C	0.81	F	1.14	F	1.03
Woodcreek Oaks	Blue Oaks Boulevard	C	0.70	D	0.84	C	0.76
Vernon Street	Cirby Way	E	0.98	F	1.02	E	0.99
Foothills Boulevard	Vineyard Road	D	0.89	E	0.96	D	0.88
Fiddyment Road	Pleasant Grove	A	0.59	D	0.85	D	0.85
Gibson	Roseville Pkwy	C	0.78	D	0.85	D	0.82
Lincoln Street	Vernon Street	D	0.90	D	0.90	E	0.93
Washington Boulevard	Junction Boulevard	C	0.80	D	0.83	D	0.84
Sierra College Boulevard	Douglas Boulevard	D	0.88	E	0.92	D	0.90
Sierra Gardens	Douglas Boulevard	C	0.79	D	0.84	C	0.79
Watt Avenue	Baseline Road	N/A[1]	N/A[1]	E	0.98	N/A[1]	N/A[1]

NOTE:
1. This intersection is not in the City of Roseville under this scenario.
SOURCE: DKS Associates 2003

Table 4.3-12 shows the 12 intersections that would experience a significant level of service impact with build-out of the SOI amendment under 2020 conditions. Eight intersections that would operate at LOS C or better under Without Project conditions would deteriorate to LOS D or worse under Full SOI amendment conditions. Five of these intersections would degrade to LOS D, 1 would degrade to LOS E, and 2 would degrade to LOS F. Four intersections that would already operate at LOS D or worse under

Without Project conditions would degrade to a worse LOS under Full SOI Amendment conditions. Three of these would deteriorate from LOS D to LOS E and 1 would deteriorate from LOS E to LOS F.

The intersection of Watt Avenue and Baseline Road (on Placer County's roadway system but adjacent to the SOI Amendment Area) would degrade from LOS C under Without Project conditions to LOS E under SOI amendment conditions.

As shown in Table 4.3-13, potential improvements, beyond the 2020 CIP improvements, were identified as mitigation measures at six of the 12 affected intersections. At 4 of these intersections, implementation of these improvements would provide a level of service as good as or better than the Without Project scenario and would increase the percentage of intersections functioning at LOS C from 70.1 percent to

Table 4.3-13 City of Roseville Recommended Mitigation for Intersections 2020 Full SOI Amendment

Intersection		Recommended Mitigation	Level of Service	
North/south	East/west		Before Mitigation	After Mitigation
Diamond Creek	Blue Oaks Boulevard	4.3-1(a). Add 3rd eastbound and westbound through lanes (requires widening of Blue Oaks Boulevard from Woodcreek Oaks to west of Diamond Creek) and Restripe southbound approach to 1 Southbound left/through/right lane and 1 southbound left only lane	F	C
Fiddyment Road	Baseline Road	4.3-1(b). Add 2nd southbound left-turn lane Add 2nd northbound left-turn lane Add 3rd southbound through lane Add 3rd northbound through-lane	E	D
Foothills Boulevard	Blue Oaks Boulevard	4.3-1(c). Add 3rd southbound through lane Add 3rd northbound left-turn lane Add 4th westbound through lane	F	D
Woodcreek Oaks	Blue Oaks Boulevard	4.3-1(d). Add 2nd northbound left-turn lane and 2nd southbound left-turn lane	D	C
Vernon Street	Cirby Way	No feasible improvement identified	F	F
Foothills Boulevard	Vineyard Road	No feasible improvement identified	E	E
Fiddyment Road	Pleasant Grove	No feasible improvement identified	D	D
Gibson	Roseville Pkwy	No feasible improvement identified	D	D
Washington Boulevard	Junction Boulevard	No feasible improvement identified	D	D
Sierra College Boulevard	Douglas Boulevard	No feasible improvement identified	E	E
Sierra Gardens	Douglas Boulevard	4.3-1(e) Add westbound right-turn lane.	D	C
Watt Avenue	Baseline Road	4.3-1(f). Add 3rd northbound and add 3rd southbound through lane	E	D
Percentage of Intersections Citywide Operating at LOS C or Better			70.1%	71.9%

NOTE:
Intersections that operate at LOS D or worse are shaded.
SOURCE: DKS Associates 2003

71.9 percent. At the intersection of Blue Oaks Boulevard and Foothills Boulevard, MM 4.3-1(f) would improve conditions from LOS F to LOS D, but not to the LOS C conditions shown under the No Project scenario. At the intersection of Watt Avenue and Baseline Road, MM 4.3-1(c) would improve conditions from LOS E to LOS D, but not to the LOS C conditions shown under the Without Project scenario. MM 4.3-1(a) provides for the addition of a third through lane in each direction on Blue Oaks Boulevard at its intersection with Diamond Creek Boulevard. Under the 2020 CIP, Blue Oaks Boulevard would be widened to six lanes east of Woodcreek Oaks Boulevard. Further analysis of the travel demand under SOI amendment scenario indicates that the SOI Amendment Area would require extending the widening of Blue Oaks Boulevard from Woodcreek Oaks Boulevard to west of Crocker Ranch Road and has been included in this mitigation measure.

No feasible improvements were identified at the other 6 intersections:

- Vernon Street/Cirby Way
- Foothills Boulevard/Vineyard Road
- Fiddyment Road/Pleasant Grove
- Gibson/Roseville Parkway
- Washington Boulevard/Junction Boulevard
- Sierra College Boulevard/Douglas Boulevard

The City's level of service policy allows the City Council to take an action to accept degradation in the level of service of one or more of its signalized intersections from the levels identified in the 2020 CIP as long as 70 percent or more of the total signalized intersections in the City would operate at LOS C or better. With or without the recommended intersection mitigation measures, more than 70 percent of the City's signalized intersections would operate at LOS C or better under 2020 Plus SOI Amendment conditions. However, since no feasible improvements were found to mitigate significant impacts on levels of service at six intersections, the SOI amendment would have a **significant and unavoidable** impact.

West Roseville Specific Plan

The City's travel demand model was used to estimate the change in daily and P.M. peak hour traffic volumes on roadways throughout the City of Roseville and in surrounding communities due to development of the WRSP under 2020 conditions. The daily traffic volumes within the City under the 2020 Plus WRSP scenario are shown in Figure 4.3-10 (Daily Traffic Volumes Under 2020 Plus West Roseville Specific Plan).

As stated above, traffic volume forecasts are not based on a simple layering/adding of assumed project-generated traffic volumes onto the 2020 Without Project traffic volumes. Rather, the City's travel demand model is used to predict how travel patterns would change if WSRP land uses are added to 2020 land uses. The travel model redistributes trips and can cause traffic on some roadways to decrease and cause changes in "critical" traffic movements at intersections, sometimes at intersections some distance from the WRSP Area.

An intersection level of service analysis was conducted for this scenario. This analysis includes all signalized intersections within the City of Roseville assumed under the Without Project scenario plus additional signals that would likely be warranted on or adjacent to the WRSP site due to implementation of the WRSP. A planning-level signal warrant analysis indicates the following eight intersections would require signalization under the 2020 Plus WRSP scenario:

- Within WRSP
  - Fiddyment Road and Hayden Parkway South
  - Fiddyment Road and Hayden Parkway North
  - Blue Oaks Boulevard and Hayden Parkway
  - Blue Oaks Boulevard and West Side Drive
  - Blue Oaks Boulevard and "N/S" Street
  - Pleasant Grove Boulevard and Village Green Drive
  - Pleasant Grove Boulevard and Bob Doyle Drive
- Outside WRSP
  - Fiddyment Road and Westhills Drive

Table K-2 in Appendix K provides the estimated levels of service for 150 signalized intersections in the City of Roseville under 2020 Without Project and 158 signalized intersections under the 2020 Plus WRSP conditions.

Table 4.3-11 shows the number and percentage of City intersections that would operate at LOS C or better for both 2020 Without Project and 2020 Plus WRSP conditions assuming no additional roadway improvements beyond those included in the City's current CIP program. Under WRSP conditions, 112 signalized intersections would operate at LOS C or better. These represent 70.9 percent of the 158 total signalized intersections.

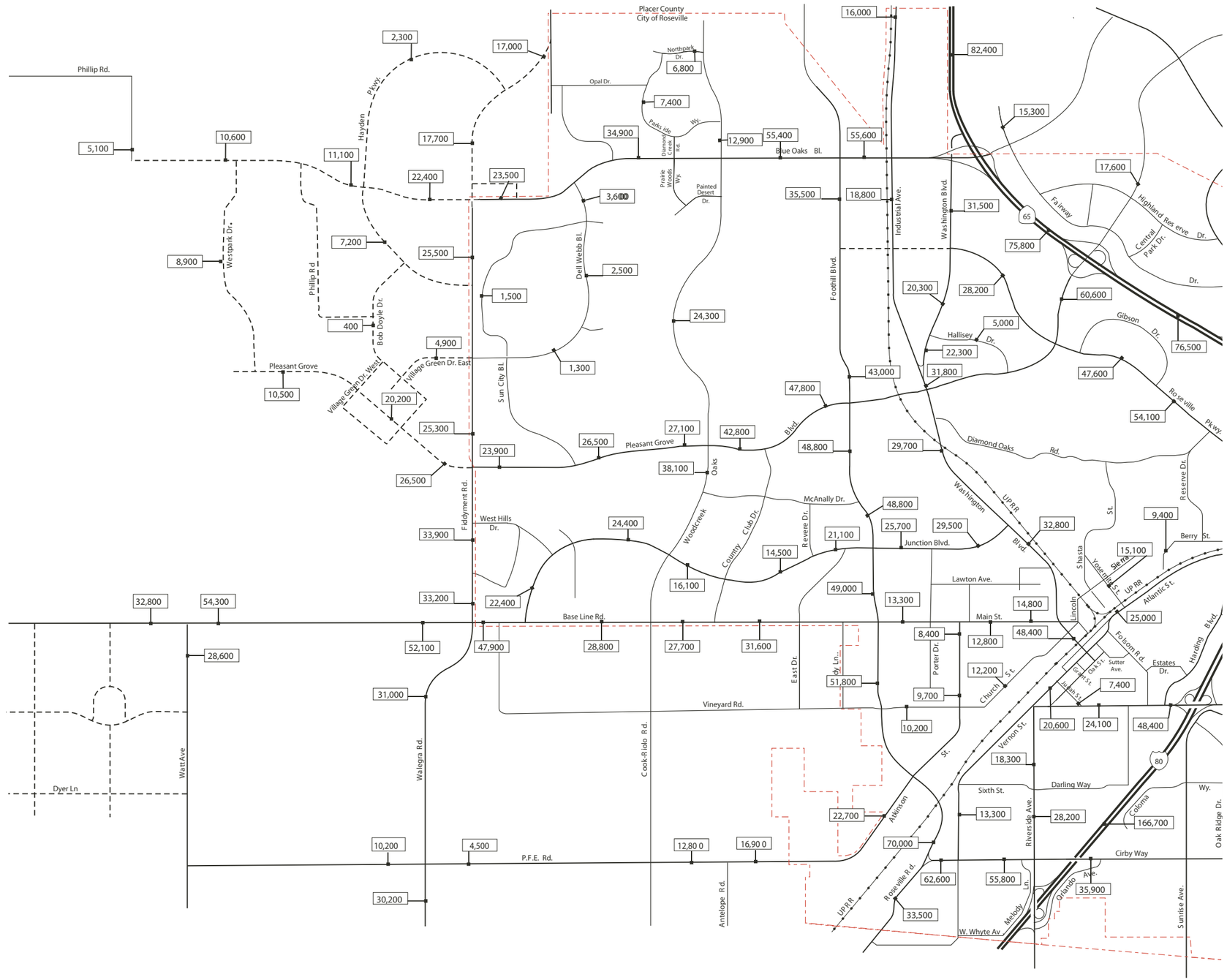


FIGURE **4.3-10**

Daily Traffic Volumes under 2020 Plus West Roseville Specific Plan

***Source*:** DKS Associates

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City of Roseville

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Table 4.3-12 provides the estimated levels of service for all signalized intersections in the City of Roseville affected under WRSP Amendment conditions. This table includes new intersections that would warrant signals under WRSP conditions.

Table 4.3-12 shows the seven intersections that would experience a significant level of service impact with build-out of the WRSP under 2020 conditions. Five intersections that would operate at LOS C or better under Without Project conditions would deteriorate to LOS D or worse under 2020 Plus WRSP conditions. Three of these would degrade to LOS D, one would degrade to LOS E, and one would degrade to LOS F. Two intersections that would operate at LOS D or worse under Without Project conditions would be further degraded under WRSP conditions. These two intersections would deteriorate from LOS D to LOS E.

As shown in Table 4.3-14, potential improvements, beyond the 2020 CIP improvements, were identified as mitigation measures at four of the seven affected intersections. Implementation of the improvements identified in Table 4.3-14 and identified under MM 4.3-2 would provide a level of service as good as or better than the Without Project scenario at these intersections, and would increase the percentage of intersections functioning at LOS C from 70.9 percent to 72.8 percent. As discussed above, under the 2020 CIP Blue Oaks Boulevard would be widened to six lanes east of Woodcreek Oaks Boulevard. Further analysis of the travel demand under Cumulative Plus WRSP scenario indicates that the WRSP would require extending the widening of Blue Oaks Boulevard from Woodcreek Oaks Boulevard to west of Crocker Ranch Road and has been included in this mitigation.

Table 4.3-14 City of Roseville Recommended Mitigations for Intersections 2020 Plus WRSP

Intersection			Level of Service	
North/South	East/West	Recommended Mitigation	Before Mitigation	After Mitigation
Diamond Creek	Blue Oaks Boulevard	MM 4.3-2(a). Add 3rd eastbound and westbound through lanes (requires widening of Blue Oaks Boulevard from Woodcreek Oaks to west of Diamond Creek)	E	C
Fiddyment Road	Baseline Road	MM 4.3-2(b). Add 2nd northbound left and 2nd southbound left-turn lanes	E	D
Foothills Boulevard	Blue Oaks Boulevard	MM 4.3-2(c). Add 3rd southbound through lane Add 3rd northbound left-turn lane Add 4th westbound through lane	F	C
Fiddyment Road	Pleasant Grove	MM 4.3-2(d). Add 3rd northbound and 3rd southbound through lanes	D	C
Gibson	Roseville Pkwy	No feasible improvement identified	D	D
Lincoln Street	Vernon Street	No feasible improvement identified	E	E
Washington Boulevard	Junction Boulevard	No feasible improvement identified	D	D
Percentage of Intersections Citywide Operating at LOS C or Better			70.9%	72.8%

NOTE:
Intersections that experience significant impacts are shaded.
SOURCE: DKS Associates 2003

No feasible improvements were found at the following three intersections:

- Gibson/Roseville Parkway
- Lincoln Street/Vernon Street
- Washington Boulevard/Junction Boulevard

As discussed in Chapter 2 (Project Description), two options are being considered for the extension of Blue Oaks Boulevard north of the WRSP. Because the intersection configuration would be similar, traffic operations would be identical under the two options.

The City's level of service policy allows the City Council to take an action to accept degradation in the level of service of one or more of its signalized intersections from the levels identified in the 2020 CIP as long as 70 percent or more of the total signalized intersections in the City would operate at LOS C or better. With or without the recommended intersection mitigation measures, more than 70 percent of the City's signalized intersections would operate at LOS C or better under 2020 Plus WRSP conditions. However, since no feasible improvements were found to mitigate significant impacts on levels of service at three intersections, the WRSP would have a **significant and unavoidable** impact on City of Roseville roadways.

IMPACT 4.3-2:	**INCREASED TRAFFIC ON STATE HIGHWAYS.**		
Applicable Policies and Regulations:	None Applicable		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant	Significant
Mitigation Measures:	None available	None available	None available
Significance after Mitigation:	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

SOI Amendment Area

Table 4.3-15 shows the projected daily traffic volumes and levels of service on state highways within the City of Roseville under 2020 SOI amendment conditions. Table 4.3-16 provides estimated change in daily traffic volumes for interchange ramps to the State highways within the City, while Table 4.3-17 provides the peak hour levels of service at intersections between freeway ramps and local roadways in Roseville.

Table 4.3-15 State Highways 2020 Average Daily Traffic Volumes

Facility	Segment	Lanes	Without Project		SOI Amendment Area		WRSP	
			ADT	LOS	ADT	LOS	ADT	LOS
I-80	Sac. County line to Riverside Avenue	8+ 2HOV	200,900	F1	202,700	F1	201,400	F1
	Riverside Avenue to Douglas Boulevard	6	167,400	F3	167,100	F3	166,400	F3
	Douglas Boulevard to Eureka Road	6	159,800	F2	160,300	F2	159,900	F2
	Eureka Road to SR-65	8	180,900	F1	181,800	F2	181,900	F1
	SR-65 to Rocklin Road	6	116,900	E	117,100	E	117,000	E
SR-65	Galleria to Pleasant Grove Boulevard	4	75,700	D	77,000	E	76,300	E
	Pleasant Grove Boulevard to Blue Oaks Boulevard	4	75,300	D	76,200	E	75,900	D
	Blue Oaks Boulevard to Sunset Boulevard	4	82,300	F	82,700	F	82,500	F
SR-70/99	North of Riego Road	4	28,800	A	29,000	A	28,700	A
	South of Riego Road	4	52,500	B	52,800	B	51,300	B

NOTES:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9
F1 represents LOS F conditions for 1 hour during the morning and evening peak commute periods while F2 represents LOS F conditions for 2 hours.
Intersections that experience significant impacts are shaded.
SOURCE: DKS Associates 2003

Table 4.3-16 Interchange Ramps 2020 Estimated Change in Average Daily Traffic Volumes

Interchange	Ramps	Estimated Change in Daily Volume Due to SOI Amendment	Estimated Change in Daily Volume Due to WRSP
I-80 / Riverside Avenue	Westbound On from Southbound Riverside Avenue	-1470 (11.0%)	-680 (5.0%)
	Westbound On from Northbound Riverside Avenue	+760 (16.0%)	0
	Westbound Off	-810 (10.5%)	-1460 (19.0%)
	Eastbound On	-530 (7.2%)	-220 (0.4%)
	Eastbound Off to Northbound Riverside Avenue	-20 (0.2%)	0
	Eastbound Off to Auburn Boulevard/Orlando Avenue	-500 (3.9%)	+630 (4.9%)
SR-65 / Pleasant Grove Boulevard	Northbound On from Eastbound Pleasant Grove	+180 (4.3%)	+230 (5.5%)
	Northbound On from Westbound Pleasant Grove	+340 (16.2%)	+290 (13.9%)
	Northbound Off	+600 (6.9%)	+480 (5.6%)
	Southbound On from Eastbound Pleasant Grove	+370 (5.5%)	+40 (0.6%)
	Southbound On from Westbound Pleasant Grove	+510 (17.5%)	+420 (14.4%)
	Southbound Off	+630 (9.7%)	+510 (7.8%)
SR-65 / Blue Oaks Boulevard	Northbound On	+450 (3.6%)	+250 (2.0%)
	Northbound Off to Eastbound Blue Oaks Boulevard	+320 (13.3%)	0 (0%)
	Northbound Off to Westbound Blue Oaks Boulevard	+490 (5.1%)	+410 (4.3%)
	Southbound On from Eastbound Blue Oaks Boulevard	+700 (7.8%)	+590 (6.5%)
	Southbound On from Washington Boulevard	-430 (16.1%)	-840 (31.9%)
	Southbound Off	+110 (0.8%)	-530 (3.8%)

SOURCE: DKS Associates 2003

Table 4.3-17 Intersections with State Highway Ramps 2020 Level of Service

Location	Without Project		SOI Amendment Area		WRSP	
	LOS	V/C	LOS	V/C	LOS	V/C
Riverside Avenue and I-80 WB Off-ramp	A	0.44	A	0.44	A	0.44
SR-65 NB Off-ramp and Blue Oaks Boulevard	B	0.68	C	0.70	C	0.71
SR-65 NB Off-ramp and Pleasant Grove	A	0.54	A	0.54	A	0.54
SR-65 SB Off-ramp and Pleasant Grove	A	0.51	A	0.51	A	0.50
Washington Boulevard/SR-65 SB Off and Blue Oaks Boulevard	B	0.66	B	0.68	B	0.69
I-80 WB Off-ramp and Douglas Boulevard	C	0.81	C	0.79	C	0.78
I-80 WB On-ramp and Atlantic Street	C	0.75	C	0.73	C	0.72
SR-65 NB On-ramp and Stanford Ranch Boulevard	B	0.68	B	0.69	B	0.69
SR-65 SB On-ramp and Stanford Ranch Boulevard/Galleria Boulevard	C	0.73	C	0.75	C	0.74
I-80 WB Off-ramp/Taylor Road and Eureka Road	E	0.94	E	0.91	E	0.91

SOURCE: DKS Associates 2003

The analysis assumes that all of the 2020 transportation improvements contained in the Metropolitan Transportation Plan (MTP) would be implemented, including the widening of I-80 to accommodate HOV lanes between Madison Avenue and the Sacramento/Placer County line and construction of the State Route 65 Lincoln Bypass.

The estimated development levels under the adopted General Plans of Roseville and surrounding jurisdictions would increase traffic volumes on state highways within the City of Roseville. I-80 between SR-65 and Sacramento/Placer County line and SR-65 through Roseville would operate at LOS F conditions during peak hours. The poor level of service anticipated on both I-80 and SR-65 under 2020 conditions would exist with or without the SOI amendment, which would increase the average daily traffic on state highway segments by 1,300 vehicles, or by 1.4 percent. As shown in Table 4.3-17, all intersections with state highway ramps would operate at LOS C or better. Although the SOI amendment would not cause any highway segment to degrade to LOS F, it would add traffic to segments already operating at LOS F. This increase would be a **significant and unavoidable** impact on state highways. Highway operations could be improved by the addition of HOV, auxiliary and/or mixed-flow lanes on I-80 and SR-65 through Roseville, ramp metering (throughout the I-80 and SR-65 corridors) and regional TSM/TDM elements. Such improvements and measures should be resolved on a regional level, through cooperative effort involving SACOG, the Placer County Transportation Planning Agency (PCTPA) and Caltrans. These improvements could not be implemented by a single project.

It must be noted that the traffic volume forecasts are not based on a simple layering/adding of assumed project-generated traffic volumes onto the 2020 Without Project traffic volumes. Rather, the City's travel demand model is used to predict how travel patterns would change if the project land uses is added to 2020 land uses. The travel model redistributes trips and can cause traffic on some roadways to decrease

and cause changes in "critical" traffic movements at intersections, sometimes at intersections some distance from the SOI Amendment Area. Because of this redistribution and the SOI amendment Area's distance from a State highway, the SOI Amendment contribution to highway traffic is relatively small, or even improves traffic slightly, as shown in Table 4.3-16.

West Roseville Specific Plan

Table 4.3-15 shows the projected daily traffic volumes and levels of service on State Highways in the vicinity of the WRSP Area under 2020 Plus WRSP conditions. Table 4.3-16 provides estimated change in daily traffic volumes for interchange ramps to the State highways within the City, while Table 4.3-17 provides the peak hour levels of service at intersections between freeway ramps and local roadways in Roseville. The analysis assumes that all of the 2020 transportation improvements contained in the Metropolitan Transportation Plan (MTP) would be implemented, including the widening of I-80 to accommodate HOV lanes between Madison Avenue and the Sacramento/Placer County line and construction of the State Route 65 Lincoln Bypass.

The poor level of service anticipated on both I-80 and SR-65 under 2020 conditions would exist with or without the WRSP. As shown in Table 4.3-15, the WRSP would contribute only a small fraction (less than one percent) of the traffic volumes on these highways. As discussed above, this relatively small contribution to highway traffic is due to the redistribution of traffic and the distance between the WRSP Area and State highways. On some segments, the WRSP would reduce traffic levels. As shown in Table 4.3-17, intersections with state highway ramps would operate at LOS C or better. While the WRSP would not cause any highway segment or ramp intersection to degrade from LOS E or better to LOS F, it would contribute to traffic congestion on segments that have degraded to LOS F under 2020 Plus WRSP conditions. Therefore, the WRSP would have a **significant and unavoidable** impact on State highways.

As discussed above, traffic operations could be improved by the addition of HOV, auxiliary and/or mixed-flow lanes on I-80 and SR-65 through Roseville, ramp metering (throughout the I-80 and SR-65 corridors) and regional TSM/TDM elements. Such improvements and measures should be resolved on a regional level, through cooperative effort involving SACOG, the Placer County Transportation Planning Agency (PCTPA) and Caltrans. However, such measures could not be implemented by a single project.

IMPACT 4.3-3:	INCREASED TRAFFIC ON PLACER COUNTY ROADWAYS.		
Applicable Policies and Regulations:	None Applicable[86]		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant	Significant
Mitigation Measures:	MM 4.3-3 (Construct identified improvements on Placer County roadways and limit access) (WRSP) MM 4.3-4 (Construct identified improvements on Placer County roadways and limit access) (Remainder Area)	MM 4.3-3 (Construct identified improvements on Placer County roadways and limit access)	MM 4.3-4 (Construct identified improvements on Placer County roadways and limit access)
Significance after Mitigation:	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

Table 4.3-18 shows the projected daily traffic volumes on Placer County roadways under 2020 Plus WRSP and 2020 Plus SOI Amendment conditions. These daily volumes were estimated by the City of Roseville's travel demand model. The analysis assumes that those improvements to Placer County's roadways that were included in the Sacramento Area Council of Government's (SACOG's) Metropolitan Transportation Plan (MTP) for 2020 would be implemented under with and without project conditions. This includes the widening of Baseline Road from Fiddyment Road to west of Watt Avenue to six lanes and the remainder of Baseline Road to the Sutter County line to 4 lanes, plus the widening of both Watt Avenue and Walerga Road from two to four lanes between Baseline Road and the Sacramento/Placer County line. The 2020 without project lane assumptions on Placer County roadways are shown in Table 4.3-18.

SOI Amendment/Remainder Area

Table 4.3-18 shows the projected daily traffic volumes on Placer County roadways under 2020 Plus SOI Amendment conditions. It was assumed that with full development of the SOI Amendment Area, Fiddyment Road from Pleasant Grove Boulevard to Baseline Road would be annexed into the City of Roseville and thus would not be part of Placer County's roadway system. Table 4.3-18 shows the lane assumptions for Placer County roadways under 2020 Plus SOI Amendment conditions.

[86] The County does have policies regarding service levels on local roadways. These policies are the basis of the standards of significance for County roadways. However, because they do not apply to City of Roseville actions, they are not identified as policies or regulations that would reduce impacts.

Table 4.3-18 Placer County 2020 Average Daily Traffic Volumes and Levels of Service

Roadway	Location	Assumed Lanes in 2020	Without Project		SOI amendment Area		WRSP	
			ADT	LOS	ADT	LOS	ADT	LOS
Baseline Road	Sutter Co. to Tanwood	4	29,300	D	30,100	D	29,700	D
	Tanwood to Watt Avenue	6	32,700	B	36,500	B	32,800	B
	Watt Avenue to Fiddyment	6	51,600	E	46,500	D	52,100	E
Fiddyment Road	Baseline Road to Pleasant Grove Boulevard	4	33,100	E	N/A[1]	N/A[1]	33,200	E
	Roseville City Limits to Sunset Boulevard	2	12,900	C	16,000	D	14,200	C
Walerga Road	Baseline Road to PFE Road	4	27,600	C	33,000	E	31,000	D
Watt Avenue	Baseline Road to PFE Road	4	27,900	C	36,100	F	28,600	D
Phillip Road	WRSP to Brewer Road	2	300	A	2,800	A	5,100	A
Brewer Road	Baseline Road to Phillip Road	2	2,900	A	3,800	A	6,800	A

NOTES:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.
Intersections that experience significant impacts are shaded.
1. Roadway segment would be within City limits under this scenario.
SOURCE: DKS Associates 2003

A roadway segment level of service analysis (summarized in Table 4.3-18) indicates that development of the SOI Amendment Area would cause Walerga Road between Baseline Road and PFE Road to worsen from LOS C to LOS E, and Watt Avenue between Baseline Road and PFE Road to worsen from LOS C to LOS F. The analysis also indicates that development of the SOI amendment would cause Fiddyment Road between the north Roseville City limit and Sunset Boulevard to worsen from LOS C to LOS D.

It was estimated that development of the SOI Amendment Area would increase traffic on Phillip Road west of the SOI Amendment Area from a very low volume (approximately 300 vehicles per day) to about 2,800 daily vehicles. Currently, Phillip Road is a narrow, unimproved rural road, a portion of which is gravel. While this roadway's traffic carrying capacity is sufficient that the SOI amendment would not cause a level of service impact, it would cross a threshold used by Placer County in its CIP and traffic fees for defining improvements to rural roadways. If a rural collector or arterial roadway currently carries less than 2,000 daily vehicles but future growth causes the roadway to carry more than 2,000 daily vehicles, then improvements to that roadway, primarily involving a wider cross-section and potentially paved shoulders is justified and thus included in the CIP and traffic fees. This impact could be lessened by improving Phillip Road to Placer County's Rural Collector standards between the SOI Amendment Area and Brewer Road (see MM 4.3-4.).

An intersection level of service analysis, summarized in Table 4.3-20, was also conducted at several key intersections in unincorporated Placer County. This analysis indicates the SOI amendment would cause the intersection of Watt Avenue and PFE Road to worsen from LOS C to LOS D, the intersection of Watt

Avenue and Baseline Road would degrade from LOS C to LOS E, and the intersection of Pleasant Grove Drive and Baseline Road to degrade from LOS D to LOS E.

The degradation of County roadway and intersection operations to LOS D or worse would be a significant impact. Implementation of MM 4.3-4, which recommends improvements to the affected roadways, would improve conditions on affected roadways. MM 4.3-4 improvements are shown in Table 4.3-19 (for roadway segments) and Table 4.3-21 (for intersections).

Table 4.3-19 Placer County Recommended Mitigation for Roadway Segments SOI Amendment

Roadway	Location	Assumed Lanes in 2020	Mitigation	LOS	
				Before Mitigation	After Mitigation
Fiddyment Road	North Roseville City Limits to Sunset Boulevard	2	MM 4.3-4 (a) Widen to 4 lanes	D	A
Walerga Road	Baseline Road to PFE Road	4	MM 4.3-4 (b) Widen to 6 lanes	E	B
Watt Avenue	Baseline Road to PFE Road	4	MM 4.3-4 (c) Widen to 6 lanes	F	B
Phillip Road	WRSP to Potero Road	2	MM 4.3-4(d) Improve Phillip Road to Placer County Rural Standard	N/A	N/A

NOTES:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.
Intersections that experience significant impacts are shaded.
SOURCE: DKS Associates 2003

Table 4.3-20 Placer County 2020 Intersections Levels of Service

Roadway		Without Project		Full SOI Amendment		WRSP	
North/South	East/West	LOS	V/C	LOS	V/C	LOS	V/C
Watt Avenue	PFE Road	C	0.73	D	0.88	C	0.76
Watt Avenue	Baseline Road	C[1]	0.73	E[1]	0.98	C[1]	0.75
Pleasant Grove Drive	Baseline Road	D	0.87	E	0.92	D	0.88

NOTES:
All intersections assumed to be signalized by 2020.
Intersections that experience significant impacts are shaded.
1. Level of service analysis for this intersection is based on modified Circular 212 capacities used by Roseville for its CIP
SOURCE: DKS Associates 2003

Table 4.3-21 Placer County Recommended Mitigation for Intersections SOI Amendment

Intersection		Mitigation	LOS	
North/South	East/West		Before Mitigation	After Mitigation
Watt Avenue	PFE Road	MM 4.3-4(e): Widen Watt Avenue to 6 lanes at this intersection	D	C
Watt Avenue	Baseline Road	MM 4.3-4(f): Add 3rd northbound and 3rd southbound lanes	E	D
Pleasant Grove Drive	Baseline Road	MM 4.3-4(g): Add northbound right-turn lane	E	D

NOTE:
Intersections that experience significant impacts are shaded.
SOURCE: DKS Associates 2003

Implementation of MM 4.3-2(f) (Add 3rd northbound and add 3rd southbound through lane to the intersection of Watt Avenue and Baseline Road) would result in LOS D conditions but not to LOS (under the Without Project scenario). Implementation of an "extraordinary" improvement at the intersection of Watt Avenue and Baseline Road would result in LOS C or better, however, because the improvement may not be feasible, it has not been included as a mitigation measure.

Implementation of the measures identified in Table 4.3-19 and Table 4.3-21 would reduce this impact to a less-than-significant level. However, the improvements lie outside the jurisdiction of the City of Roseville. Placer County can implement this suggested mitigation measure, but may choose not to. If the improvements are not made, levels of service would remain as shown in Table 4.3-18 and Table 4.3-20. Therefore, this impact is considered **significant and unavoidable**.

West Roseville Specific Plan

A roadway segment level of service analysis (summarized in Table 4.3-18) indicates that Baseline Road, west of Fiddyment Road and Fiddyment Road between Pleasant Grove Boulevard and Baseline Road, would both operate at LOS E under 2020 conditions with or without the WRSP. The analysis also indicates that the WRSP would cause both Walerga Road and Watt Avenue between Baseline Road and PFE Road to worsen from LOS C to LOS D. Both of these roadway segments are assumed to have four lanes. MM 4.3-3(a) and 4.3-3(b), which calls for the widening of these roadway segments from four to six lanes, would reduce these impacts to a less-than-significant level. To assist with the widening of Baseline Road and the Walerga/Fiddyment Corridor, the City and County are currently exploring the potential for a regional traffic fee to fund improvements to these roadways. The WRSP would be obligated to pay a fair share portion of these improvements. The estimated fee for the WRSP is estimated at between $400 and $600 per dwelling unit equivalent.

Implementation of these measures would reduce this impact to a less-than-significant level. However, the improvement lies outside the jurisdiction of the City of Roseville. Placer County can implement this suggested mitigation measure, but may choose not to. If the improvements are not made, levels of service would remain as shown in Table 4.3-18. Therefore, this impact is considered **significant and unavoidable**.

It was estimated that the WRSP would increase traffic on Phillip Road west of the WRSP from a very low volume (about 300 vehicles per day) to about 5,100 daily vehicles. Currently, Philip Road is a narrow, unimproved rural road, a portion of which is gravel. While this roadway's traffic carrying capacity is sufficient so the WRSP would not cause a level of service impact, it would cross a threshold used by Placer County in its CIP and traffic fees for defining improvements to rural roadways. If a rural collector

or arterial roadway currently carries less than 2,000 daily vehicles but future growth causes the roadway to carry more than 2,000 daily vehicles, then improvements to that roadway, primarily involving a wider cross-section and potentially paved shoulders is justified and thus included in the CIP and traffic fees. In order to avoid this impact, MM 4.3-3(c) requires that Blue Oaks Boulevard between realigned Phillip Road West Side Drive not be opened to through traffic until a north/south connection is constructed from West Side Drive to Baseline Road. With this enclosure in place, Phillip Road would not carry more than 2,000 daily vehicles. Traffic volumes on Phillip Road would be reduced from 5,100 daily vehicles to 2,000 daily vehicles with this section of Blue Oaks Boulevard being closed to through traffic. Once a connection between Baseline Road and West Side Drive is established, Blue Oaks Boulevard could be opened to West Side Drive.

An intersection level of service analysis, summarized in Table 4.3-20, was also conducted at several key intersections in unincorporated Placer County under 2020 Plus WRSP conditions. This analysis indicates the WRSP would not significantly degrade the level of service at any intersections in Placer County.

IMPACT 4.3-4:	**INCREASED TRAFFIC ON CITY OF ROCKLIN ROADWAYS.**		
Applicable Policies and Regulations:	None Applicable[87]		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Less Than Significant	Significant
Mitigation Measures:	MM 4.3-5 (Sunset Boulevard intersection improvements) (Remainder Area)	None required	MM 4.3-5 (Sunset Boulevard intersection improvements)
Significance after Mitigation:	Significant and Unavoidable	Less Than Significant	Significant and Unavoidable

Table 4.3-23 shows the projected daily traffic volumes on roadways in the City of Rocklin under the 2020 Plus WRSP and 2020 Plus SOI Amendment scenarios. These daily volumes were estimated by the City of Roseville's travel demand model. The analysis assumes that those improvements to Rocklin's roadways that were included in Rocklin's 2020 CIP, plus the roadways in Rocklin's proposed Northwest Annexation Area would be implemented.

[87] The County does have policies regarding service levels on local roadways. These policies are the basis of the standards of significance for County roadways. However, because they do not apply to City of Roseville actions, they are not identified as policies or regulations that would reduce impacts.

Table 4.3-23 Rocklin Roadways Average Daily Traffic Volumes and Levels of Service 2020

Roadway	Location	Assumed Lanes in 2020	Without Project		SOI Amendment Area		WRSP	
			ADT	LOS	ADT	LOS	ADT	LOS
Sunset Boulevard	SR-65 to W. Stanford Ranch	6	27,100	A	30,000	A	28,900	A
	W. Stanford Ranch W. Oaks	6	40,800	C	41,400	C	40,500	C
	W. Oaks to Park	6	40,900	C	43,400	C	41,900	C
	Park to Stanford Ranch	6	42,200	C	44,300	D	43,300	C
	Stanford Ranch to Whitney Boulevard	6	40,700	C	42,300	C	41,700	C
	Whitney Boulevard to Pacific Avenue	6	46,900	D	47,800	D	47,500	D
Park Drive	Roseville City limits to Sunset Boulevard	4	17,500	A	17,500	A	17,600	A
Blue Oaks Boulevard	Route 65 to Lone Tree Boulevard	6	37,000	B	41,500	C	39,800	C
	Lone Tree Boulevard to Sunset Boulevard	4	25,600	C	26,200	C	26,200	C
Stanford Ranch Road	Fairway Drive to Sunset Boulevard	6	28,000	A	29,200	A	28,400	A

NOTES:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.
Segments experiencing significant impacts are shaded.
SOURCE: DKS Associates 2003

SOI Amendment Area

Build-out of the City of Roseville plus the estimated "2020 market levels" of development under the adopted General Plans of other jurisdictions in South Placer County would increase traffic volumes on Rocklin's roadways. The analysis shows that Sunset Boulevard between Whitney Boulevard and Pacific Avenue would operate at LOS D under 2020 Without Project conditions. The SOI Amendment Area would increase traffic volumes on this segment but would not cause degradation in the LOS of this segment as it would function at the LOS D with or without the SOI Amendment Area. The SOI amendment would cause one segment, Sunset Boulevard from Park to Stanford Ranch, to degrade from LOS C to LOS D. This would be a significant impact. MM 4.3-5 would improve operations on these segments to pre-project conditions, reducing this impact to a less-than-significant level. However, the improvement lies outside the jurisdiction of the City of Roseville. The City of Rocklin can implement this suggested mitigation measure, but may choose not to. If the improvements are not made, the level of service would remain as shown in Table 4.3-24. Therefore, this impact is considered **significant and unavoidable**.

Table 4.3-24 City of Rocklin Recommended Mitigation for Roadway Segments SOI Amendment

Roadway	Location	Assumed Lanes in 2020	Mitigation	LOS	
				Before Mitigation	After Mitigation
Sunset Boulevard	Park to Stanford Ranch	6	MM 4.3-5 Improve intersections at either end of segment	D	C or better

NOTE:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.
SOURCE: DKS Associates 2003

West Roseville Specific Plan

The level of service analysis for Rocklin's roadways, also shown in Table 4.3-23, indicates that the WRSP would not cause any of Rocklin's roadways to degrade to LOS D or worse conditions. Therefore, the WRSP would have a **less-than-significant** impact on Rocklin's roadways.

IMPACT 4.3-5:	INCREASED TRAFFIC ON SUTTER COUNTY ROADWAYS.		
Applicable Policies and Regulations:	None Applicable[88]		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant	Less Than Significant
Mitigation Measures:	None required	None required	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant	Less Than Significant

Table 4.3-25 shows the projected daily traffic volumes on selected roadways in Sutter County under the 2020 Plus WRSP and 2020 Plus SOI Amendment scenario. These daily volumes were estimated by the City's travel demand model that includes build-out of Phase 1 of the South Sutter County Specific Plan. Therefore, this analysis also assumes that the Phase 1 improvements to Sutter County roadways that were included in the South Sutter County Specific Plan would be implemented by 2020, including a widening of Riego Road to six lanes and construction of an interchange at SR-70/99 and Riego Road.

Table 4.3-25 Sutter County Average Daily Traffic Volumes 2020

Roadway	Assumed Lanes in 2020	Without Project		WRSP		Full SOI Amendment	
		ADT	LOS	ADT	LOS	ADT	LOS
Riego Road	6	25,600	A	27,400	A	26,100	A
Sunset West/Howsley Road	2	5,900	A	6,900	A	6,500	A
Catlett Road	2	200	A	100	A	100	A

NOTE:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9
SOURCE: DKS Associates 2003

SOI Amendment Area/Remainder Area

Build-out of the City of Roseville and the estimated "2020 market levels" of development under the adopted General Plans of other local jurisdictions would increase traffic volumes on Sutter County

[88] The County does have policies regarding service levels on local roadways. These policies are the basis of the standards of significance for County roadways. However, because they do not apply to City of Roseville actions, they are not identified as policies or regulations

roadways. The analysis shows that Riego Road at the Sutter/Placer County line would operate at LOS F conditions as a two-lane roadway during peak hours in 2020. If the Phase 1 roadway improvements that were included in the adopted South Sutter County Specific Plan are implemented, the six lanes on Riego Road would provide LOS A conditions with or without the SOI amendment. Therefore, the impact on Sutter County roadways would be **less than significant**.

West Roseville Specific Plan

Riego Road at the Sutter/Placer County line would operate at LOS F conditions as a two-lane roadway during peak hours in 2020. If the Phase 1 roadway improvements that were included in the adopted South Sutter County Specific Plan are implemented, the six lanes on Riego Road would provide level of service A conditions with or without the WRSP. Therefore, the impact of the WRSP on Sutter County roadways would be **less than significant**.

IMPACT 4.3-6:	INCREASED TRAFFIC ON SACRAMENTO COUNTY ROADWAYS.		
Applicable Policies and Regulations:	None Applicable		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Less Than Significant	Significant
Mitigation Measures:	MM 4.3-6 (Widen Watt Avenue)	None required	MM 4.3-6 (Widen Watt Avenue)
Significance after Mitigation:	Significant and Unavoidable	Less Than Significant	Significant and Unavoidable

Table 4.3-26 shows the projected daily traffic volumes on Sacramento County roadways with development of the WRSP and SOI amendment. These daily volumes were estimated by the City of Roseville's travel demand model. The analysis assumes that those improvements to Sacramento County's roadways that were included in the Sacramento Area Council of Government's (SACOG's) Metropolitan Transportation Plan (MTP) for 2020 would be implemented with and without the WRSP.

that would reduce impacts.

Table 4.3-26 Sacramento County 2020 Average Daily Traffic Volumes and Levels of Service

Roadway	Location	Assumed Lanes in 2020	Without Project		SOI Amendment		WRSP	
			ADT	LOS	ADT	LOS	ADT	LOS
Watt Avenue	Placer Co Line to Elverta Road	4	33,500	E	36,200	F	34,100	E
Walerga Road	Placer Co Line to Elverta Road	4	31,200	D	34,800	E	33,200	E
Elverta Road	West of Watt Avenue	4	28,100	C	29,000	D	28,200	C

NOTES:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.
Intersections that experience significant impacts are shaded.
SOURCE: DKS Associates 2003

SOI Amendment Area

Table 4.3-26 shows the projected daily traffic volumes on Sacramento County roadways under 2020 Plus Full SOI amendment conditions. Table 4.3-26 also shows the lane assumptions for Sacramento County roadways under these conditions.

A roadway segment level of service analysis (summarized in Table 4.3-26) indicates that development of the full SOI amendment would cause Watt Avenue From the Placer County Line to Elverta Road to worsen from LOS E to LOS F, Walerga Road from Placer County Line to Elverta Road to worsen from LOS D to LOS E, and Elverta Road west of Watt Avenue to worsen from LOS C to LOS D. Of these LOS changes, only a degradation of LOS from E to F is considered a significant impact in Sacramento County.

Implementation of MM 4.3-6 would reduce this impact to a less-than-significant level by increasing the number of lanes on Watt Avenue. However, the improvements lie outside the jurisdiction of the City of Roseville. Sacramento County can implement this suggested mitigation measure, but may choose not to. If the improvement is not made, levels of service would remain as shown in Table 4.3-26. Therefore, this impact is considered **significant and unavoidable**.

West Roseville Specific Plan

Table 4.3-26 shows the projected daily traffic volumes on Sacramento County roadways under 2020 Plus Full WRSP conditions, as well as the lane assumptions for Sacramento County roadways.

A roadway segment level of service analysis (summarized in Table 4.3-26) indicates that development of the full WRSP would cause Walerga Road from Placer County Line to Elverta Road to worsen from LOS D to LOS E. Since only a degradation of LOS from E to F is considered a significant impact in Sacramento County, this change in LOS is considered **less than significant**.

IMPACT 4.3-7:	INCREASED DEMAND FOR BICYCLE FACILITIES.		
Applicable Policies and Regulations:	City of Roseville General Plan, Circulation Element, Bicycle Master Plan		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Less Than Significant	Significant
Mitigation Measures:	MM 4.3-7 (Provide appropriate bicycle network with future Specific Plan submittal) (Remainder Area)	None Required	MM 4.3-7 (Provide appropriate bicycle network with future Specific Plan submittal)
Significance after Mitigation:	Less Than Significant	Less Than Significant	Less Than Significant

SOI Amendment Area

Development of the SOI Amendment Area would result in a substantial demand for safe and convenient bicycle facilities by residents and employees of the SOI Amendment Area for primarily transportation-related purposes. As discussed in detail below, the WRSP provides for adequate bicycle pathways. The bikeway system in the Remainder Area has not been defined. The lack of Class I and II bikeways within the Remainder Area would be a significant impact, because it would not provide for safe bicycle travel within the Remainder Area, or connection to and completion of the City's bicycle network. MM 4.3-7 would reduce this impact to a **less-than-significant** level by ensuring that appropriate bicycle facilities are provided. A critical element of that bikeway system would be the provision of bikeway facilities between the WRSP and Baseline Road, including an uninterrupted Class I bike trail facility.

West Roseville Specific Plan

The WRSP would result in a substantial demand for safe and convenient pedestrian/bicycle facilities by residents and employees of the WRSP for primarily transportation-related purposes. A network of Class I and Class II bikeways is provided in the WRSP that would allow travel throughout the WRSP Area and provide linkage to the City's planned bikeway system. The City's Bicycle Master Plan specifies that Class II bike lanes will be included on several arterials in the vicinity of the WRSP, including Fiddyment Road, Pleasant Grove Boulevard and Blue Oaks Boulevard. The WRSP also identifies each of the above roadways as bicycle commuter routes, with Class I and II bike lanes and connections to the City's existing and planned bikepath network. Because the WRSP would provide adequate bicycle facilities and conditions, this is considered a **less-than-significant** impact.

The Bicycle Master Plan would be updated to reflect proposed bicycle facilities within the WRSP. No further improvements are required for bicycle transportation impacts. Implementation of the Bikeway Master Plan would reduce impacts associated with an increased demand for bicycle facilities by providing guidelines for the development of a bikeway system that provides connections between the City's major employment and housing areas and planned bikeways.

IMPACT 4.3-8:	TRANSIT ACCESS AND CIRCULATION.		
Applicable Policies and Regulations:	City of Roseville General Plan, Circulation Element, Short and Long Range Transit Plans		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant	Significant
Mitigation Measures:	MM 4.3-8 (Pay fair share of additional transit service) (WRSP) MM 4.3-9 (Transit service policies) (Remainder Area)	MM 4.3-8 (Pay fair share of additional transit service)	MM 4.3-9 (Transit service policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant	Less Than Significant

SOI Amendment Area

The development in SOI Amendment Area, especially the age-restricted community within the WRSP Area, would generate significant unmet transit demand. The City's Long Range Transit Master Plan did not anticipate development of the SOI amendment and thus did not include future transit service to the SOI Amendment Area. Such unmet transit needs are identified by the Placer County Transportation Planning Agency (PCTPA) and are reviewed on an annual basis. Unmet needs could be for any one of the three transit services provided by the City; commuter, fixed route or dial-a-ride. These unmet needs could be met by extending or adding new transit services into key portions of the SOI Amendment Area, while providing connections to other transit routes at one or more of the City's five transfer points.

Providing adequate transit service to the SOI Amendment Area could be difficult economically even at full build-out for two reasons. First, the SOI Amendment Area is some distance from major destinations, such as hospitals/medical offices, regional shopping and major employers. Second, the residential densities within the SOI Amendment Area would be relatively low. For these reasons, bus fares would likely cover less than the average percentage of operating costs currently covered by existing routes, i.e., the farebox recovery ratio would decline as a result of adding new services for the SOI Amendment Area.

MM 4.3-8, which requires that WRSP development pay its fair share toward transit improvements, and MM 4.3.9, which requires that plans in the Remainder Area provide for fair share funding of capital and operating costs for expanded transit services, would reduce the transit impact to a **less-than-significant** level. The amount of transit services needed would be identified in an updated Short Range Transit Plan and an updated Long Range Transit Master Plan.

West Roseville Specific Plan

There is currently one transit route in the vicinity of the WRSP. Roseville transit's Route M extends from Timber Creek Lodge in Del Webb Sun City eastward to Galleria Mall and travels on Fiddyment Road between Pleasant Grove Boulevard and Del Webb Boulevard. Route M operates on an hourly headway and has transfers to other routes at two transfer points: Woodcreek Oaks/Junction and Galleria Mall. All of Roseville Transit's fixed route and dial-a-ride bus services (including Route M) operates Monday through Friday 6:00 A.M. to 8:00 P.M. and Saturdays 8:00 A.M. to 6:00 P.M. Dial-a-ride services also operate on Sundays from 8:00 A.M. to 6:00 P.M.

The City's Long Range Transit Master Plan (LRTMP) guides development of both inter- and intra-City transit services through year 2010. This Plan did not anticipate development of the WRSP and thus did not include future service to the WRSP Area.

The 8,430 residential dwelling units and the non-residential development in WRSP, especially the proposed age-restricted community would generate significant transit demand. The WRSP provides for five park and ride lots to be dispersed throughout the WRSP Area in commercial, office and industrial locations. Each designated location includes 20 park and ride spaces. Bus turnouts and shelters (stops) will also be provided within the WRSP Area, and will be designed and constructed in accordance with the City's Improvement Standards. The WRSP does not provide for expansion of bus service to these bus stops.

The development of the WRSP would create an "unmet transit need" by build-out. Such unmet transit needs are identified by the Placer County Transportation Planning Agency (PCTPA) and are reviewed on an annual basis. An unmet need could be met by a variety of methods and based upon the needs, current and planned services, current and planned capital purchases, and current farebox recovery ratios, e.g., an unmet need for fixed route service may be met by extending an existing route, such as Route M, or providing an additional route that flows through key portions of the WRSP and provides connections to other transit routes at one or more of the City's five transfer points.

Providing adequate transit service to the WRSP Area would be economically difficult in early phases of the WRSP. The WRSP Area is some distance from major destinations within the existing City of Roseville, such as hospitals/medical offices, regional shopping and major employers. During early phases of the WRSP, residents are likely to rely on existing services and employment opportunities within the City. The WRSP includes land designated for commercial, business/professional, light industrial and industrial land uses that could support uses and employment-generating land uses needed to service the WRSP. As WRSP develops, service and employment uses will be developed as well to serve the population within the WRSP. At build-out of the WRSP, bus fares are projected to fall short of the average percentage of operating costs currently covered by existing routes, i.e., new services to the WRSP would likely lower current farebox recovery ratio for the entire system to a point below 15%, which is the minimum required by the State of California in order to continue receiving operating funds.

MM 4.3-8 requires that WRSP development contribute its fair share towards the capital and operating costs for expanded transit services to the WRSP Area. The amount of transit services needed would be identified in an updated Short Range Transit Plan and/or an updated Long Range Transit Master Plan prepared for the WRSP. Implementation of the Short and Long Range Transit Plans would reduce impacts associated with transit access and circulation by guiding development of both inter- and intra-City transit services. The expansion of transit services to the WRSP would reduce the impact on transit to a **less-than-significant** level.

IMPACT 4.3-9:	**INCREASED CONGESTION DUE TO PROPOSED PEDESTRIAN DISTRICT OVERLAY.**		
Applicable Policies and Regulations:	General Plan Policy CB-1		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Less Than Significant	Significant
Mitigation Measures:	None available	None required	None available
Significance after Mitigation:	Significant and Unavoidable	Less Than Significant	Significant and Unavoidable

SOI Amendment Area

As discussed in Chapter 2 (Project Description), a number of General Plan amendments are proposed to incorporate the WRSP, if adopted, into the City's General Plan. One of the proposed General Plan amendments is the creation of a Pedestrian District overlay that could be used to reinforce the pedestrian

nature of the Village Center within the WRSP Area. While proposed specifically for the Village Center, the Pedestrian District policy could be applied elsewhere in the City, if the City Council chooses to do so.

In order to enable the creation of Pedestrian Districts, the following policy would be added to the General Plan Circulation Element:

> Enable the City to designate a Pedestrian District over a geographic area for the purpose of implementing measures that promote pedestrian walkability. In these districts, the City recognizes that pedestrian travel takes a higher priority than automobile travel, which could reduce the vehicular level of service.

The objectives of the Pedestrian District policy are

- Create a safe walking environment
- Ensure security of pedestrians
- Create land use patterns conducive to walking
- Integrate walking with other modes of transportation
- Integrate public services into a Pedestrian District

These objectives would be achieved by a variety of measures, such as

1. Mid-block crossing treatments
2. Intersection Crossing Treatments
3. Traffic Calming
    - Raised crosswalks
    - Raised intersections
    - Textured pavement
    - Neckdowns
    - Pedestrian refuge islands
    - Split pedestrian crossovers
4. Pedestrian Enhancements
    - Comprehensive sidewalk networks
    - Pedestrian-only walkways
    - Street furniture
    - Covered areas
    - Street trees
    - Lighting
    - Building setback

- Parking lot walkways
- Consolidation of driveways
- Use of on-street parking

Such measures would improve conditions for pedestrians, but could slow vehicular travel. For the most part, these measures would not affect levels of service at signalized intersections, because the number of lanes and traffic controls (e.g., signals) would not change. For intersections that are close to the next lower (worse) service level, a capacity reduction from a traffic calming measure at that intersection could be enough to trigger a lower service level. For example, if an intersection was operating at LOS C, but its v/c ratio is 0.81 (LOS D begins at a v/c ratio of 0.82), measures that marginally reduce the intersections traffic carrying capacity could trigger LOS D.

Under the proposed Pedestrian District policy, the City Council could, after a public hearing, establish a Pedestrian District in any project. Under the City's current Level Of Service policy, LOS C or better must be maintained at 70 percent or more of the City's signalized intersections during the P.M. peak hour, and the City must strive to maintain LOS C at all locations. The City will generally seek to improve intersections that operate at LOS D or worse, unless extraordinary improvements (e.g., grade separations) are required. Signalized intersections within that district could be exempt from the level of service policy, so they would be able to operate at LOS D or worse, which would indicate that vehicles were experiencing congestion. In addition, intersections within the District may not be included in the calculations of percentage of intersections operating at LOS C or better.

Depending on traffic operations at intersections within Pedestrian Districts, their exemption from the LOS policy could affect the ability of the City to maintain LOS C at 70 percent of its intersections. If most or all of the intersections were operating at LOS C or better, their removal from the calculation would decrease the percentage at LOS C or better. If most or all operated at LOS D or worse, their removal would increase the percentage. Because of the relatively large number of signalized intersections that are considered (over 150), exempting a small number from the equation is unlikely to have an effect on achievement of the 70 percent standard, unless the ratio is very close to 70 percent. For example, within the WRSP, two signalized intersections could be exempted. Because both are estimated to operate at LOS A, their exemption would reduce the percentage of intersections operating at LOS C or better from 70.9 percent to 70.5 percent. If both intersections operated at LOS D or worse, their exemption would increase the ratio from 70.9 percent to 71.2 percent.

Because the proposed Pedestrian District policy would not cause any intersections within the SOI Amendment Area to operate at an unacceptable level, or cause the number of intersections operating at

LOS C or better to drop below 70 percent, the impact for the SOI Amendment Area would be less than significant. However, the City could choose to apply the Pedestrian District to other areas of the City. The outcome of applying the policy outside of the SOI Amendment Area cannot be determined without a specific proposal and separate analyses. Depending on the service level and number of intersections that would be exempt, a Pedestrian District could include intersections that operate at LOS D or worse, and/or reduce the number of intersections operating at LOS C or better below the 70 percent required by City policy. In such a case, roadway improvements to achieve LOS C or better would likely not be constructed because they would increase traffic flow, thereby counteracting the intent of the policy, which is focused on improving pedestrian conditions. Therefore, this would be a **significant and unavoidable** impact.

If a Pedestrian District was proposed for an area that was projected to have intersections operating at or close to LOS D or worse, separate environmental review would be required and the City Council would consider whether the improvements in pedestrian circulation and safety in that particular proposed district outweighed the increase in traffic congestion.

West Roseville Specific Plan

The Pedestrian District is proposed for the Village Center. There would be two signalized intersections within the Village Center:

- Pleasant Grove Boulevard and Bob Doyle Drive
- Pleasant Grove Boulevard and Village Green Drive

These intersections are predicted to operate at LOS A under 2020 conditions with the WRSP. The traffic model assumes that traffic speeds through the Village Center would be slower than in other areas with similar roadways. The pedestrian improvements that could be implemented in the Village Center as a result of the Pedestrian Overlay could slow traffic even more than assumed in the model. However, given that the Pedestrian Overlay would not alter the number of lanes, roadway capacity would be unchanged. Given the high LOS that would occur at these two intersections, the amount of delay resulting from the pedestrian improvements would not be substantial enough to reduce operations below LOS C.

If the two Village Center intersections were exempted from the City's LOS policy, then the number of intersections used to calculate the percentage of intersections operating at LOS C or better would drop from 70.9 percent (see Table 4.3-11) to 70.5 percent.

Because the Pedestrian Overlay would not cause any intersections in the WRSP Area to operate at LOS D or worse, or reduce the number of intersections operating at LOS C or better below 70 percent, the impact would be **less than significant**.

Mitigation Measures

MM 4.3-1(a–f): Pay Fair Share of Improvements in the CIP Including Improvements to the Following City Intersections (Impact 4.3-1 – SOI Amendment Area):

- *Diamond Creek/Blue Oaks Boulevard*
- *Fiddyment Road/Baseline Road*
- *Foothills Boulevard/Blue Oaks Boulevard*
- *Woodcreek Oaks/Blue Oaks Boulevard*
- *Sierra Gardens/Douglas Road*
- *Watt Avenue/Baseline Road*

The following roadway improvements would be necessary to achieve acceptable service levels under the 2020 Plus SOI Amendment scenario.

(a) Intersection of Diamond Creek/Blue Oaks Boulevard: Add 3rd eastbound and westbound through lanes to the intersection of Diamond Creek and Blue Oaks Boulevard (requires widening of Blue Oaks Boulevard from Woodcreek Oaks to west of Diamond Creek) and restripe southbound approach to one southbound left/through/right lane and one southbound left-only lane. This mitigation measure would result in LOS C.

(b) Intersection of Fiddyment Road/Baseline Road: Add 2nd southbound left-turn lane and 2nd northbound left-turn lane, add 3rd southbound through lane and add 3rd northbound through lane to the intersection of Fiddyment Road and Baseline Road. This mitigation measure would result in LOS D.

(c) Intersection of Foothills Boulevard/Blue Oaks Boulevard: Add 3rd southbound through, add 3rd northbound left-turn lane, and 4th westbound through lane to the intersection of Foothills Boulevard and Blue Oaks Boulevard. This mitigation measure would result in LOS D.

(d) Intersection of Woodcreek Oaks/Blue Oaks Boulevard: Add 2nd northbound left-turn lane and 2nd southbound left-turn lane to the intersection of Woodcreek Oaks and Blue Oaks Boulevard. This mitigation measure would result in LOS C

(e) Intersection of Sierra Gardens/Douglas Boulevard: Add westbound right turn only lane to the intersection of Sierra Gardens and Douglas Boulevard. This mitigation measure would result in LOS C.

(f) Intersection of Watt Avenue/Baseline Road: Add 3rd northbound and add 3rd southbound through lane. This mitigation measure would result in LOS D.

The SOI Amendment Area would develop over a period of years. Therefore, the impacts on these intersections would occur over a period of time. As with other improvements in the 2020 CIP, the City will monitor traffic conditions and determine when specific improvements are needed. The City of Roseville's traffic impact fees should be revised to include the SOI Amendment Area. Specific Plans and/or development proposals shall provide for fair share contributions of the cost of the improvement through the updated traffic impact fees.

As discussed above, construction of intersection improvements could have impacts on biological and cultural resources, air quality, water quality, and noise levels. These impacts will be evaluated as part of the CIP update to incorporate the adopted mitigation. Such impacts are not anticipated to be substantial as they would occur in an urban area and/or would be temporary.

MM 4.3-2(a–d): Fair Share Policies for Improvements in the CIP at the Following City Intersections (Impact 4.3-1 – WRSP):

- *Diamond Creek/Blue Oaks*
- *Fiddyment Road/Baseline Road*
- *Foothills Boulevard/Blue Oaks Boulevard*
- *Fiddyment Road/Pleasant Grove Boulevard*

As new Specific Plans and/or development proposals are approved in the WRSP Area, the CIP shall be revised to include the following improvements to be funded by new development through payment of traffic mitigation fees.

(a) **Intersection of Diamond Creek/Blue Oaks Boulevard:** Add 3rd eastbound and westbound through lanes to the intersection of Diamond Creek and Blue Oaks Boulevard (requires widening of Blue Oaks Boulevard from Woodcreek Oaks to west of Diamond Creek). This mitigation measure would result in LOS C.

(b) **Intersection of Fiddyment Road/Baseline Road:** Add 2nd northbound left-turn lane, add 2nd southbound left-turn lane, to the intersection of Fiddyment Road and Baseline Road. This mitigation measure would result in LOS D.

(c) **Intersection of Foothills/Blue Oaks Boulevard:** Add 3rd southbound through lane, add 3rd northbound left-turn lane and add 4th westbound through lane to the intersection of Foothills Boulevard and Blue Oaks Boulevard. This mitigation measure would result in LOS D.

(d) **Intersection of Fiddyment Road/Pleasant Grove Boulevard:** Add 3rd southbound and 3rd northbound through lanes. This mitigation measure would result in LOS C.

The WRSP would develop over a period of years. Therefore the impacts to these intersections would occur over a long period of time. As with other improvements in the 2020 CIP, the City will monitor traffic conditions and determine when specific improvements are needed. The City of Roseville's traffic impact fees shall be revised to include the WRSP. The applicants shall contribute the WRSP's fair share of the cost of these improvements through payment of the updated traffic impact fees at the time of building permits.

Construction of the above intersection improvements would result in temporary increases in construction noise and dust, as well as the potential loss of or degradation to biological and cultural resources, and increased urban runoff. The exact impacts cannot be determined at this time because the roadway design has not been determined. When the City updates the CIP to include these improvements, the area of disturbance will be evaluated for such impacts, as required by CEQA. In addition, impacts on air quality, noise and water quality will need to be evaluated. Because the intersections to be improved are within the City, the potential for impacts on biological and cultural resources is likely to be insubstantial, and could be mitigated with measures similar to those identified in this EIR. Impacts related to erosion, noise and air emissions would be temporary, and typically are mitigable during construction.

MM 4.3-3(a–c): Construct Identified Roadway Improvements on Placer County Roadways and Limit Access to Phillip Road (Impact 4.3-3 – WRSP):

(a) **Walerga Road:** Widen Walerga Road between Baseline Road and PFE road from four to six lanes. Based on Placer County's roadway segment capacities, this mitigation measure would result in LOS C or better conditions.

(b) **Watt Avenue:** Widen Watt Avenue between Baseline Road and PFE Road from four to six lanes. Based on Placer County's roadway segment capacities, this mitigation measure would result in LOS C or better conditions on this segment of Watt Avenue.

(c) **Phillip Road:** Blue Oaks Boulevard shall not be opened to through traffic between Realigned Phillip Road and West Side Drive until a north/south connection is constructed from West Side Drive to Baseline Road.

By limiting through traffic on Blue Oaks Boulevard from Phillip Road to West Side Drive until an additional north/south connection is available, the City will ensure that volumes on the portion of Phillip Road in the County will meet County standards for rural roadways.

Implementation of MM 4.3-3 (a) through (c) would reduce these impacts to a **less-than-significant level**; however, these improvements lie outside the jurisdiction of the City of Roseville. Placer County can implement the suggested mitigation measures, but may choose not to. If the improvements are not made, levels of service would remain as shown in Table 4.3-21 and Table 4.3-22. The City of Roseville will monitor traffic volumes and coordinate with the County to consider and implement additional operational measures/restrictions if needed as the plan develops.

Table 4.3-22 Placer County Recommended Mitigation for Roadway Segments WRSP

Roadway	Location	Assumed Lanes in 2020	Mitigation	LOS	
				Before Mitigation	After Mitigation
Walerga Road	Baseline Road to PFE Road	4	MM 4.3-3(a) Widen to 6 lanes	D	A
Watt Avenue	Baseline Road to PFE Road	4	MM 4.3-3(b) Widen to 6 lanes	D	A
Phillip Road	WRSP to Brewer Road	2	MM 4.3-3(c) Limit access	A	A

NOTES:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.
Intersections that experience significant impacts are shaded.
SOURCE: DKS Associates 2003

As discussed above, if these improvements were constructed, there could be environmental effects on biological and cultural resources, noise, air quality, and water quality. Because the design of such improvements, or even if the responsible jurisdiction would choose to construct the improvements, is not known at this time, exact environmental impacts cannot be determined.

MM 4.3-4(a-g): Construct Identified Improvements on Placer County Roadways (Impact 4.3-3 – SOI Amendment Area).

Placer County should construct the following roadway improvements:

(a) **Fiddyment Road:** Widen Fiddyment Road between the North Roseville City limit and Sunset Boulevard from two to four lanes. Based on Placer County's roadway segment capacities, this mitigation measure would result in LOS A.

(b) **Walerga Road:** Widen Walerga Road between Baseline Road and PFE road from four to six lanes. Based on Placer County's roadway segment capacities, this mitigation measure would result in LOS C or better conditions.

(c) **Watt Avenue:** Widen Watt Avenue between Baseline Road and PFE Road from four to six lanes. Based on Placer County's roadway segment capacities, this mitigation measure would result in LOS C or better conditions on this segment of Watt Avenue.

(d) **Phillip Road:** Improve Phillip Road outside of the WRSP to Placer County Rural Collection Standards. This includes wider cross-section and potentially paved shoulders.

(e) **Intersection of Watt Avenue/PFE Road:** Widen Watt Avenue to six lanes through the intersection, which would provide LOS C at this intersection.

(f) **Intersection of Watt Avenue/Baseline Road:** Add 3rd northbound and add 3rd southbound lane. This would result in LOS D at this intersection or better.

(g) **Intersection of Pleasant Grove Drive/Baseline Road/Riego Road:** Add a northbound right-turn lane. This would result in LOS D.

Implementation of these measures would reduce these impacts to a less-than-significant level; however, the specified improvements lie outside the jurisdiction of the City of Roseville. Placer County can implement these suggested mitigation measures, but may choose not to. If the improvements are not made, levels of service would remain as shown in Table 4.3-22 and Table 4.3-23.

As discussed above, if these improvements were constructed, there could be environmental effects on biological and cultural resources, noise, air quality and water quality. Because the design of such improvements, or even if the responsible jurisdiction would choose to construct the improvements, is not known at this time, exact environmental impacts cannot be determined.

MM 4.3-5: *Improve Sunset Boulevard/Park Drive and Sunset Boulevard/Stanford Ranch Road. (Impact 4.3-4 – Remainder)*

Traffic operations and levels of service of a roadway like Sunset Boulevard are controlled by the capacity of its signalized intersections. The impact could be mitigated by the addition of through-lanes or turn-lanes on Sunset Boulevard at its intersections with Park Drive and Stanford Ranch Road. Implementation of this measure would reduce this impact to a less-than-significant level. However, the improvement lies outside the jurisdiction of the City of Roseville. The City of Rocklin can implement this suggested mitigation measure, but may choose not to. If the improvements are not made, levels of service would remain as shown in Table 4.3-17.

MM 4.3-6: *Widen Watt Avenue (Impact 4.3-6 – Remainder Area)*

Concurrent with the City's receipt of an application for development of the balance of the SOI (i.e., Remainder Area), the City of Roseville would work with Sacramento County to conduct a detailed peak hour operations analysis of this section of Watt Avenue focusing on the signalized intersections. The analysis would include specific land use and roadway information proposed within the Remainder Area, and would identify intersection improvements (i.e., additional turn lanes) or traffic operational improvements (i.e., signal interconnect/coordination, ITS, etc.) that could mitigate significant impacts to a less-than-significant level.

Widening of Watt Avenue from the Placer County line to Elverta Road would improve traffic operations on Watt Avenue. While Sacramento County could implement this measure, it could also elect not to implement this measure. If the widening is not constructed, service levels would remain as shown in Table 4.3-26.

As discussed above, if these improvements were constructed, there could be environmental effects on biological and cultural resources, noise, air quality and water quality. Because the design of such improvements, or even if the responsible jurisdiction would choose to construct the improvements, is not known at this time, exact environmental impacts cannot be determined.

MM 4.3-7: *Provide Appropriate Bicycle Network With Future Specific Plan Submittal (Impact 4.3-7 – Remainder)*

Any Specific Plan and/or development proposals in the SOI Amendment Area shall include a bicycle circulation plan that identifies Class I and II bicycle paths throughout the proposal area, and connects those bike paths to the City's network so that bicyclists can safely travel from home to schools, parks, open space areas, and employment areas. Class I bike paths shall connect with Baseline Road and the Class I bike paths in the WRSP.

The Bicycle Master Plan should be updated to include adequate bicycle facilities within the Remainder Area when it is planned.

MM 4.3-8: *Pay Fair Share of Additional Transit Services (Impact 4.3-8 – WRSP)*

The WRSP shall contribute their fair share towards the capital and operating costs for expanded transit services to the WRSP area. The amount of transit services needed would be identified in an updated Short Range Transit Plan and an updated Long Range Transit Master Plan.

MM 4.3-9: *Transit Services Policies (Impact 4.3-8 – Remainder)*

Any Specific Plan and/or development proposals in the Remainder Area shall contribute their fair share towards the capital and operating costs for expanded transit services to the project area. The amount of transit services needed would be identified in an updated Short Range Transit Plan and an updated Long Range Transit Master Plan prepared for projects in the Remainder Area.

4.4 AIR QUALITY

4.4.1 Introduction

This section evaluates the potential impacts on air quality resulting from development of the SOI Amendment Area. Referenced materials include

- *City of Roseville General Plan*
- *West Roseville Specific Plan*
- *Placer County General Plan*
- *Sacramento Area Regional Ozone Attainment Plan*

This section describes the air basin and the physical conditions affecting air pollution in the City of Roseville and surrounding areas. Sources, types, and health effects of air pollutants are also described.

Comments received in response to the Notice of Preparation (NOP) (see Appendix B) included concerns regarding the amount of pollutants generated during construction and operation of development slated to occur within the SOI Amendment Area as well as residential exposure to toxic air contaminants (TACs) associated with the Pleasant Grove Wastewater Treatment Plant (PGWWTP) and the potential electric power plant. Comments also expressed concern about the potential for locating a school in the vicinity of facilities that could emit TACs. These issues are addressed in this section.

As discussed in Chapter 1, Introduction, this EIR evaluates the impacts of the WRSP, which would include a Sphere of Influence Amendment and annexation to the City, at a project-specific level. Because a Sphere Amendment is the only action proposed for the Remainder Area (that portion of the SOI Amendment Area outside of the WRSP), a program-level analysis is provided for the Remainder Area. In order to conduct the analysis, development assumptions are made for the Remainder Area (see Chapter 2, Project Description, for details). Figure 1-1 (SOI Amendment Area) in Chapter 1 (Introduction) identifies the boundaries of the WRSP Area and Remainder Area (which comprise the total SOI Amendment Area).

As discussed in Chapter 4 of this EIR, Environmental Analysis, minor changes have been made to the proposed land uses for the WRSP since publication of the NOP. The change in the land use plan resulted in a modification to the backbone infrastructure network (e.g. roads) and a slight increase in the trip generation rate (less than 1 percent), which would slightly increase vehicle emissions. No other potential air quality impacts would be affected by the changes.

4.4.2 Environmental Setting

Air quality is determined from a combination of weather, topography, and the quantity and type of pollutants released in an area. Air quality in the Roseville area is affected by local and regional sources of pollution.

Climate and Topography

The proposed project area is located west of the City of Roseville in western Placer County, within the Sacramento Valley Air Basin (SVAB). Weather patterns throughout the basin, including Roseville, are affected by geography. The SVAB extends from south of Sacramento to north of Redding, and is bounded by the Sierra Nevada on the east, the Coast Range on the west, and the Cascade Range on the north. These mountain ranges tend to buffer the basin from the marine weather systems that originate over the Pacific and are drawn inland by the jet stream. The Carquinez Strait serves as the only westerly breach in this barrier, and exposes the midsection of the Valley to the Pacific Coast marine weather regime. Western Placer County is noticeably affected by this marine influence, which moderates climatic extremes and transports air pollutants into the area from distant sources, such as the San Francisco Bay Area and the Sacramento region. Temperature moderation is especially evident on summer evenings when cooling occurs as a result of the penetration of sea breezes.

Weather in Roseville is typically characterized by hot, dry summers and mild, wet winters. Summer temperatures range from an average low of 70°F to an average high of 90°F with temperatures in excess of 100°F being fairly common. This high average summer temperature, combined with very low relative humidity, produces hot, dry summers that contribute to ozone buildup. The winter season is characterized by overcast days and lengthy periods of rain and drizzle. Winter temperatures range from an average low of 40°F to an average high of 57°F, with occasional overnight freezing temperatures. During the winter months, carbon monoxide accumulation is of concern due to winter use of wood stoves and fireplaces. Annual precipitation averages 25 inches, with 90 percent falling from November through April. Prevailing winds are from the southwest, with a secondary concentration from the northwest.

Surface or elevated temperature inversions are common in late summer and fall. Surface inversions are formed when the air close to the surface cools more rapidly than the warm layer of air above it. Elevated inversions occur when a layer of cool air is suspended between warm air layers above and below it. Both situations result in air stagnation. Air pollutants accumulate under and within inversions, subjecting people in the region to elevated pollution levels and ensuing health concerns.

Criteria Air Quality Standards and Existing Concentrations

Much of the effort to improve air quality in the United States and California is directed toward the control of five "criteria" air pollutants: ozone (O_3), carbon monoxide (CO), particulate matter less than ten microns in diameter (PM_{10}), nitrogen oxides (NO_x), and sulfur oxides (SO_x). Pollutants subject to federal ambient standards are referred to as "criteria" pollutants because the U.S. Environmental Protection Agency (U.S. EPA) publishes criteria documents to justify the choice of standards. The federal and State standards for the criteria pollutants of greatest concern in the Sacramento Valley Air Basin—ozone, carbon monoxide, and particulate matter—are provided in Table 4.4-1. Table 4.4-2 provides a summary of the health effects associated with major air pollutants. Specific air quality regulations are discussed in the Regulatory Setting.

Air quality standards have been created to protect people who are most sensitive to the adverse health effects of air pollution, termed "sensitive receptors." The term "sensitive receptors" refers to specific population groups as well as the land uses where they would reside for long periods. Children, the elderly, the acutely ill, and the chronically ill are commonly identified sensitive population groups. Residences, schools, playgrounds, childcare centers, retirement homes or convalescent homes, hospitals, and clinics are commonly identified sensitive land uses. Areas sensitive to air pollutants in or near the SOI Amendment Area include age-restricted residential areas (e.g., Del Webb to the east) and the nearest right-of-way where the elderly have continuous access, such as sidewalks.

The California Air Resources Board (CARB) collects ambient air pollutant concentration data at three locations near the City of Roseville: the Roseville air monitoring station at 151 North Sunrise Avenue, the North Highlands station in Sacramento County, and the Rocklin station at 5000 Rocklin Road. Recent ozone, carbon monoxide, and particulate data collected at these three stations are summarized in Table 4.4-3.

Each air basin, county, or, in some cases, specific urban area is classified by comparing actual monitoring data with state and federal standards. If a pollutant concentration is lower than the standard, the area is classified as "attainment" for that pollutant. If a pollutant exceeds the standard, the area is classified as "non-attainment." If data are insufficient to determine whether a pollutant is exceeding the standard or not, the area is designated "unclassified." The formation, health effects, ambient air pollutant concentrations, and classifications for the three key criteria pollutants in the Sacramento Valley Air Basin are discussed below. Health effects associated with criteria pollutants are presented in Table 4.4-2.

Table 4.4-1 State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]		Sacramento Valley State Status/ Classification	Sacramento Valley National Status/ Classification
		Concentrations[c]	Primary[c,d]	Secondary[c,e]		
Photochemical Oxidants[f]	8-hour	—	0.08 ppm	Same as	Nonattainment/	Nonattainment/
	1-hourg	0.09 ppm	0.12 ppm	Primary	Serious	Serious
Carbon Monoxide	8-hour	9.0 ppm	9 ppm	Same as	Attainment/	Attainment/
	1-hour	20.0 ppm	35 ppm	Primary	None	None
Nitrogen Dioxide	Annual Mean	—	0.053 pm	Same as	Attainment/	Attainment/
				Primary	None	None
	1-hour	0.25 ppm	—			
Sulfur Dioxide	Annual Mean	—	0.03 ppm	—	Attainment/	Attainment/
					None	None
	24-hour	0.04 ppm	0.14 ppm	—		
	3-hour	—	—	0.5 ppm		
	1-hour	0.25 ppm	—	—		
Fine Particulate Matter (PM_{10})	Annual Mean	—	50 µg/m³	Same as Primary	Nonattainment	Attainment/ None
	Annual Geometric Mean	30 µg/m³	—	—		
	24-hour	50 µg/m³	150 µg/m³	Same as Primary		
Fine Particulate Matter ($PM_{2.5}$)	Annual Mean	—	15 µg/m³	Same as	Not Designated/	Not Designated/
	24-hour	—	65 µg/m³	Primary	None	None

NOTES:

ppm = parts per million, µg/m³ = micrograms per cubic meter

a California standards, other than carbon monoxide, sulfur dioxide (1-hour), and fine particulate matter, are values that are not to be equaled or violated. The carbon monoxide, sulfur dioxide (1-hour), and fine particulate matter standards are not to be violated.

b National standards, other than ozone, the 24-hour $PM_{2.5}$, the PM_{10}, and those standards based on annual averages, are not to be exceeded more than once a year. The 1-hour ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or les than one. The 8-hour ozone standard is attained when the 3-year average of the annual fourth highest daily maximum concentration is less than 0.08 ppm. The 24-hour PM_{10} standard is attained when the 99th percentile of 24-hour PM_{10} concentrations in a year, averaged over 3 years, at the population-oriented monitoring site with the highest measured values in the area, is below 150 µg/m³. The 24-hour $PM_{2.5}$ standard is attained when the 98th percentile of 24-hour $PM_{2.5}$ concentrations in a year, averaged over 3 years, at the population-oriented monitoring site with the highest measured values in the area, is below 65 µg/m³. The annual average $PM_{2.5}$ standard is attained when the 3-year average of the annual arithmetic mean $PM_{2.5}$ concentrations, from single or multiple community oriented monitors is les than or equal to 15 µg/m³.

c All measurements of air quality are to be corrected to a reference temperature of 25° C and a reference pressure of 760 mm of mercury (Hg) (1013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

d National Primary Standards: The levels of air quality deemed necessary by the federal government, with an adequate margin of safety, to protect the public health.

e National Primary Standards: The levels of air quality deemed necessary by the federal government, to protect the public welfare from any known or anticipated adverse effects to a pollutant.

f Measured as ozone.

g The 1-hour ozone standard will be replaced by the 8-hour standard on an area-by-area basis when the area has achieved 3 consecutive years of air quality data meeting the 1-hour standard.

SOURCE: CARB http:///www.arb.ca.gov, June 2002.

Table 4.4-2 Health Effects Summary of the Major Criteria Air Pollutants

Air Pollutant	Adverse Effects
Ozone	▪ Eye irritation ▪ Respiratory function impairment
Carbon Monoxide	▪ Impairment of oxygen transport in the blood stream ▪ Aggravation of cardiovascular disease ▪ Impairment of central nervous system function ▪ Fatigue, headache, confusion, dizziness ▪ Can be fatal in the case of very high concentrations in enclosed places
Particulate Matter	▪ May be inhaled and lodge in and irritate the lungs ▪ Increased risk of chronic respiratory disease with long exposure ▪ Altered lung function in children ▪ May produce acute illness with sulfur dioxide

SOURCE: Bay Area Air Quality Management District

Table 4.4-3 Summary of Air Pollutant Data Compared to Relevant Federal and State Ambient Air Quality Standards, 1999–2001

Pollutant	1999			2000			2001		
	RCK[1]	RSV[1]	NHI[1]	RCK[1]	RSV[1]	NHI[1]	RCK[1]	RSV[1]	NHI[1]
OZONE									
Highest 1-hour (ppm)	0.128	.136	.121	.118	.128	.120	.128	.122	.132
Days>0.12 ppm (Fed)	3	2	0	0	1	0	1	0	1
Days>0.09 ppm (Cal)		14	11	16	13	10	10	9	12
CARBON MONOXIDE									
Highest 1-hour (ppm)	—	3.2	5.06	—	3.37	4.39	—	2.7	4.47
Days>35 ppm (Fed)	—	0	0	—	0	0	—	0	0
Days>20 ppm (Cal)	—	0	0	—	0	0	—	0	0
Highest 8-hour (ppm)	—	2.24	3.54	—	2.36	3.07	—	1.89	3.13
Days>=9.5 ppm (Fed)	—	0	0	—	0	0	—	—	—
Days>=9.1 ppm (Cal)	—	0	0	—	0	0	—	—	—
PARTICULATE MATTER (PM2.5)									
Highest 24-hour (ug/m³)	—	79	—	—	51	—	—	49	—
Days>50 ug/m³ (Cal)[2]	—	1	—	—	0	—	—	0	—
PARTICULATE MATTER (PM10)									
Highest 24-hour (ug/m3)	75	89	73	46	58	82	57	59	64
Days>50 ug/m3 (Cal)[2]	24	24	24	0	6	9	12	18	12

NOTES:

1 Stations: RCK (Rocklin), RSV (Roseville), NHI (North Highlands).

2 Calculated by estimating the number of days that a measurement would have been greater than the standard had measurements been collected every day.

-- Data unavailable.

SOURCE: California Air Resources Board. www.arb.ca.gov site accessed 5-8-02.

Ozone

Ozone is a colorless gas with a pungent odor. Ozone causes eye irritation and impairs respiratory function. Most ozone in the atmosphere is formed as a result of the interaction of ultraviolet light, reactive organic gases (ROG), and nitrogen oxides. Reactive organic gases are non-methane hydrocarbons, and nitrogen oxides consist mainly of nitric oxide and nitrogen dioxide. Motor vehicles are the primary source of reactive organic gases and nitrogen oxides. Ozone is a highly reactive molecule that readily combines with many different components of the atmosphere. High levels of ozone tend to exist when reactive organic gas and nitrogen oxide levels are high and sustain the ozone formation process. When the precursors are depleted, ozone levels rapidly decline. Because these reactions occur on a regional scale, ozone is considered a regional pollutant.

Western Placer County has been designated as a severe non-attainment area for the federal ozone standard and is included within the Sacramento Air Quality Maintenance Area defined by the U.S. EPA. The portion of Placer County within the Sacramento Valley Air Basin is also designated as a non-attainment area for the state ozone standard. In addition, the current recommended area designations for the Federal eight-hour ozone standard place the Sacramento Valley Air Basin in nonattainment.

Carbon Monoxide

Carbon monoxide is an odorless, colorless gas. It causes a number of health problems including fatigue, headache, confusion, and dizziness. The incomplete combustion of petroleum fuels by on-road vehicles is a major cause of carbon monoxide emissions. Carbon monoxide is also produced during the winter from wood stoves and fireplaces. Carbon monoxide tends to dissipate rapidly into the atmosphere; consequently, violations of the state carbon monoxide standard are generally limited to major traffic intersections during peak-hour traffic conditions.

Carbon monoxide levels recorded at the Roseville air monitoring station are considered representative of existing conditions in the project vicinity; however, the extensive future development projected for the west Placer County area could result in land use intensities and carbon monoxide conditions more similar to those in the North Highlands area today. The urban area of Placer County is designated as attainment for the federal carbon monoxide standards. Placer County is designated an attainment area for state carbon monoxide standards.

Sulfur Dioxide

Sulfur dioxide (SO_x) is a combustion product of sulfur or sulfur-containing fuels such as coal. The Sacramento Valley Air Basin is currently in attainment for SO_x.

Particulate Matter

Particulate matter consists of atmospheric particles resulting from fume-producing industrial and agricultural operations, and natural activities. Current standards define acceptable concentrations of particles smaller than 10 microns in diameter (PM_{10}). In addition, standards now exist for acceptable concentrations of particles smaller than 2.5 microns in diameter ($PM_{2.5}$). Placer County is designated an unclassified area for the federal standards for particulate matter and a non-attainment area for state standards for particulate matter.

Toxic Air Contaminants

In addition to the criteria air pollutants, another group of airborne substances, called Toxic Air Contaminants (TACs) are known to be highly hazardous to health, even in small quantities. TACs are airborne substances capable of causing short-term (acute) and/or long-term (chronic or carcinogenic) adverse human health effects (i.e., injury or illness). Although there are hundreds of substances that can be toxic when inhaled, air quality standards have not been set for most of them.

TACs can be emitted from a variety of common sources, including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. Natural source emissions include windblown dust and wildfires. Research facilities, farms, construction sites, and residential areas can also contribute to toxic air emissions. TACs include both organic and inorganic chemical substances. Examples include certain chlorinated hydrocarbons such as solvents, certain metals, and asbestos. In 1998, the CARB identified particulate matter from diesel-fueled engines as a TAC. Compared to other air toxics the CARB has identified and controlled, diesel particulate emissions are estimated to be responsible for approximately 70 percent of the total ambient air toxics risk throughout California.

Placer County does not currently have a monitoring station for toxic air contaminants. Since the project site is undeveloped and consists of grazing land and agricultural fields, there are no known sources emitting TACs within the site.

Land uses surrounding the site are primarily undeveloped agricultural land and residential development, however the Western Regional Sanitary landfill (WRSL) is located approximately one mile north of the Amendment Area and the soon to be completed PGWWTP located to the west of the Fiddyment Ranch property and northeast of the Westpark property.

Odors

There are four major elements involved in evaluating odor emissions: deductibility, recognition, intensity, and hedonic tone. Deductibility is the lowest concentration of an odorant that will elicit a sensory response; at this concentration there is an awareness of the presence of an added substance, but not necessarily an odor sensation. Recognition, however, is the minimum concentration that is recognized as having a characteristic odor quality noticeable to a segment of the population. Odor intensity refers to the perceived strength of the odor sensation, and odorant character is what the substance smells like (e.g. fishy, rancid, hay, sewer). Hedonic tone is a judgment of the relative pleasantness or unpleasantness of the odor, and is influenced by factors, such as subjective experience and frequency of occurrence. The apparent presence of an odor in ambient air depends on the properties of the substance emitted, its concentration in facility emissions, and the dilution of emission between the mission point and the receptor.

The primary existing odor source in the area is the PGWWTP.

Existing Emission Sources and Concentrations

There are many types of air pollutant sources in the portion of Placer County located within the Sacramento Valley Air Basin. These sources can be divided into two categories: mobile and stationary sources. The California Air Resources Board maintains an emission inventory of air pollutants within the state's air basins and counties inside those air basins. Table 4.4-4 presents the latest emission inventory of reactive organic gases, nitrogen oxides, carbon monoxide, and particulate matter for the portion of Placer County located within the Sacramento Valley Air Basin. Exhaust emissions from on-road motor vehicles are the primary source of reactive organic gases, nitrogen oxides, and carbon monoxide in the western portion of Placer County. Mobile sources account for approximately 55 percent of the reactive organic gases emissions, 74 percent of the carbon monoxide emissions in this portion of the County, and 90 percent of the nitrogen oxide emissions. Mobile sources account for high carbon monoxide concentrations at some congested traffic intersections. Area-wide sources -- particularly entrained road dust, agricultural activities, construction activities and demolition activities -- are the primary sources of particulate matter in western Placer County, accounting for approximately 85 percent of particulate emissions.

SOI Amendment Area

The SOI Amendment Area is bounded primarily by agricultural grazing land to the north, south, and west, and residential development (Del Webb Specific Plan and the North Roseville Specific Plan) to the

east. The Western Regional Sanitary Landfill (WRSL) is located approximately one mile north of the SOI Amendment Area. Within the central portion of the WRSP, some agricultural facilities and an occupied homestead exist. The City's PGWWTP is surrounded by the WRSP to the east, south, and west, and the Remainder Area to the north.

Table 4.4-4 2001 Base Year Emissions Summary for the Sacramento Valley Air Basin Portion of Placer County (tons/day)

Source Category	ROG	CO	NO_x	PM_{10}
Stationary Sources				
Fuel Combustion	0.04	1.15	1.41	0.10
Cleaning and Surface Coatings	5.07	--	--	0
Petroleum Process, Storage and Transfer	0.51	--	--	--
Industrial Processes	1.38	0.10	0.12	0.91
Total Stationary Sources	**6.99**	**1.24**	**1.53**	**1.01**
Areawide Sources				
Solvent Evaporation	3.57	--	--	--
Miscellaneous Processes	6.65	48.43	1.07	21.46
Total Areawide Sources	**6.65**	**48.43**	**1.07**	**21.46**
Mobile Sources				
On-Road Vehicles	10.78	104.16	13.79	0.40
Other Mobile	6.04	40.06	10.76	0.63
Total Mobile Sources	**16.82**	**144.2**	**24.5**	**1.03**
Natural (Non-Anthropogenic) Sources				
Total Natural Sources	**0.02**	**0.34**	**0.01**	**0.06**
Total	***30.49***	***194.5***	***27.16***	***23.56***

SOURCE: California Air Resources Board.

The City's PGWWTP and landfill could be sources of air contaminants and odors. Traffic on access roads bounding the SOI Amendment Area could also produce air contaminants. The Remainder Area consists primarily of agricultural land with limited rural residential development, and does not currently contain major sources of air pollutants; however, some contaminants are likely produced by vehicles traveling on access roads bounding the area (e.g., Baseline Road).

Of the land uses surrounding the SOI Amendment Area, the residential areas would be considered sensitive receptors with respect to air quality. Within the SOI Amendment Area, the rural residences in the SOI Amendment Area would also be considered sensitive receptors.

4.4.3 Regulatory Setting

Air quality is regulated by the U.S. EPA, the California Air Resources Board (CARB), and the Placer County Air Pollution Control District. These agencies develop rules or regulations to meet the goals or

directives imposed on them through legislation. Although U.S. EPA regulations may not be superseded, both state and local regulations may be more stringent. In general, air quality evaluations are based on air quality standards developed by the federal and state government. Mobile sources of air pollutants are largely controlled through federal and state agencies, while most stationary sources are regulated by the local air pollution control districts or air quality management districts.

Placer County spans three air basins in California: the southwestern third of the County, which includes the project site, is within the Sacramento Valley Air Basin; the northeastern portion is within the Lake Tahoe Air Basin; and the remainder is within the Mountain Counties Air Basin. Because air quality is sometimes regulated on a county-by-county basis and sometimes on a regional basis (or within an air basin), air quality regulations and planning efforts in Placer County are intricate. For instance, under federal law, a large region called the Sacramento Air Quality Maintenance Area, which includes Sacramento and parts of Yolo, Solano, and Placer Counties (including Roseville), has been designated non-attainment for the federal ozone standard. Consequently, the jurisdictions in this region must solve the ozone problem jointly.

Federal

Clean Air Act

The Federal Clean Air Act (FCAA), as amended, establishes air quality standards for several pollutants. These standards are divided into primary standards and secondary standards. Primary standards are designed to protect public health, and secondary standards are intended to protect public welfare from effects such as visibility reduction, soiling, nuisance, and other forms of damage. In addition, the State of California has adopted its own standards. The State and federal standards for the pollutants of greatest concern in the Sacramento Valley Air Basin are presented in Table 4.4-2. The Federal Clean Air Act requires that regional plans be prepared for non-attainment areas illustrating how the federal air quality standards could be met. The California Air Resources Board approved the most recent revision of the State Implementation Plan in 1994, and submitted it to the U.S. EPA. The State Implementation Plan was approved by the U.S. EPA in 1996. The State Implementation Plan consists of a list of reactive organic gas and nitrogen oxide control measures for demonstrating future attainment of ozone standards. The steps to achieve attainment will continue to require significant emissions reductions in both stationary and mobile sources.

Eight-Hour Ozone Standard

The federal eight-hour ozone standard was established in response to human health studies indicating that longer ozone exposures at lower levels also resulted in adverse health effects, including coughing, increased asthma attacks, chronic lung inflammation, decreased lung function, and decreased lung defenses against bacterial infections. The eight-hour standard was established in order to complement, not replace, the existing one-hour standard. Both federal ozone standards now apply, along with California's own one-hour ozone standard.

Federal Ozone Attainment Plan

The Sacramento Valley Air Basin is subject to a Federal Ozone Attainment Plan (the Sacramento Area Regional Ozone Attainment Plan). This plan was adopted by five air districts in the Sacramento area in order to build upon existing state and local air quality programs. The Plan contains adopted measures, implementation and adoption schedules for new measures, emission inventories, modeling results, contingency measures, and emissions reduction demonstrations that guide reduction of emissions in the Sacramento Region. Placer County needs to reach attainment for federal ozone standards by 2005.

Toxic Air Contaminants

Regulation of TACs is achieved through federal and state controls on individual sources. The 1990 federal CAA Amendments offer a comprehensive plan for achieving significant reduction in both mobile and stationary source emissions of certain designated Hazardous Air Pollutants (HAP). All major stationary sources of designated HAP's are required to obtain and pay the required fees for an operating permit under Title V of the federal CAA Amendments.

The Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588), California Health and Safety Code Section 44300 et seq, provides for the regulation of over 200 air toxics and is the primary air contaminant legislation in the State. Under the Act, local air districts may request that a facility account for its TAC emissions. Local air districts then prioritize facilities on the basis of emissions, and high-priority designated facilities are required to submit a health risk assessment and communicate the results to the affected public. The TAC control strategy involves reviewing new sources to ensure compliance with required emission controls and limits, maintaining an inventory of existing sources of TACs, and developing new rules and regulations to reduce TAC emissions. The purpose of AB 2588 is to identify and inventory toxic air emissions and to communicate the potential for adverse health effects to the public.

Assembly Bill 1807 (AB 1807), enacted in September 1983, sets forth a procedure for the identification and control of TACs in California. The CARB is responsible for the identification and control of TACs, except in their pesticide use. AB 1807 defines a TAC as an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. The CARB prepares identification reports on candidate substances under consideration for listing as TACs. The reports and summaries describe the use of and the extent of emissions in California resulting in public exposure, together with their potential health effects.

As discussed previously, the CARB recently identified diesel particulate matter as a toxic air contaminant. In October 2000, the CARB released the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. This plan represents the State's comprehensive plan to substantially reduce diesel particulate emissions throughout the state. The plan contains the following three components:

1. New regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce diesel particulate emissions by about 90 percent overall from current levels;
2. New retrofit requirements for existing on-road, off-road, and stationary diesel-fueled engines and vehicles where determined to be technically feasible and cost effective; and
3. New phase 2 diesel fuel regulations to reduce the sulfur content levels of diesel fuel to no more than 15 parts per million to provide the quality of diesel fuel needed by the advanced diesel particulate emission controls.

State

The State of California air quality standards are generally more stringent than the corresponding federal standards for the criteria air pollutants. The California Clean Air Act (CCAA) requires non-attainment areas to plan for the eventual attainment of the standards. Areas have been designated as attainment or non-attainment with respect to the ambient air quality standards. The timeframe given to meet state air quality standards would depend upon the severity of air quality problems. The California Health and Safety Code Section 40914(A) requires that air districts design a plan to achieve an annual reduction in district-wide emissions of five percent or more for each non-attainment criteria pollutant or its precursor, averaged every consecutive three-year period, beginning at base year 1987.

The CARB, regulates mobile emissions sources, and oversees the activities of County air pollution control districts and regional air quality management districts. The CARB regulates local air quality indirectly by establishing vehicle emission standards, by conducting research activities, and through planning and coordination activities.

Local

Placer County Air Pollution Control District

The project site is located within the jurisdiction of the Placer County Air Pollution Control District (PCAPCD). The PCAPCD regulates stationary emission sources through its permit authority, and indirect or area source emission sources (e.g., fireplaces, lawn maintenance equipment) through planning and review. The PCAPCD is responsible for implementing emissions standards for stationary sources and other requirements of federal and state laws.

The SOI Amendment Area is part of the Sacramento Air Quality Maintenance Area. Each County within this area has adopted individual programs to reduce air pollution. PCAPCD has published its Air Quality Attainment Plan. The plan complies with the California Clean Air Act requirement to meet the state ambient air quality standards. The plan focuses on ozone and carbon monoxide, and includes strategies to reduce air pollutants by promoting public involvement, encouraging compliance through positive influence and behavior, and public education.

Toxic air contaminants are considered separately from the criteria pollutants in the regulatory process. No ambient air quality standards have been set for toxic air contaminants. Therefore, a health risk assessment is generally performed to estimate the potential for health risks associated with emission of toxic air contaminants.

PCAPCD has several rules that relate to the SOI Amendment Area and are defined below:

Rule 205 Nuisance

> A person shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause to have a natural tendency to cause injury or damage to business or property.

Rule 207 Particulate Matter

> A person shall not release or discharge into the atmosphere from any source or single processing unit, exclusive of sources emitting combustion contaminants only, particulate matter in excess of 0.1 grains per cubic foot of gas at standard conditions.

Rule 217 Cutback and Emulsified Asphalt Paving Materials

> A person shall not discharge into the atmosphere volatile organic compounds (VOCs) caused by the use or manufacture of Cutback or Emulsified asphalts for paving, road construction or road maintenance, unless such manufacture or use complies with the provisions of this rule.

Rule 218 Architectural Coatings

1. Except as provided in Subsections (D)(2) and (D)(5) a person shall not sell or offer for sale, apply or manufacture for sale any architectural coating which at the time of sale or manufacture:
   a. Contains more than 250 grams of VOC's per liter of coating excluding water and any colorant added to tint bases, or
   b. Is recommended for use as a bituminous pavement sealer unless it is an emulsion-type coating.
2. A person shall not sell, offer for sale, apply or manufacture for sale any non-flat architectural coating which at the time of sale or manufacture has a VOC content excluding water and colorant added to tint bases in excess of the following:
   a. 380 grams of VOC per liter of coating if manufactured prior to September 1, 1989.
   b. 250 grams of VOC per liter of coating if manufactured on or after September 1, 1989.

Rule 228 Fugitive Dust

301 VISIBLE EMISSIONS NOT ALLOWED BEYOND BOUNDARY LINE: A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area (including disturbance as a result of the raising and/or keeping of animals or by vehicle use), such that the presence of such dust remains visible in the atmosphere beyond the boundary line of the emission source.

302 VISIBLE EMISSIONS FROM ACTIVE OPERATIONS: In addition to the requirements of Rule 202, Visible Emissions, a person shall not cause or allow fugitive dust generated by active operations, an open storage pile, or a disturbed surface area, such that the fugitive dust is of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke as dark or darker in shade as that designated as No. 2 on the Ringelmann Chart (i.e., 40% opacity), as published by the United States Bureau of Mines.

303 CONCENTRATION LIMIT: A person shall not cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter, 24 hour average, when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other EPA-approved equivalent method for PM_{10} monitoring. Sampling shall be conducted in accordance with the procedures specified in Section 500.

304 TRACK-OUT ON TO PAVED PUBLIC ROADWAYS: Visible roadway dust as a result of active operations, spillage from transport trucks, and the track-out of bulk material onto public paved roadways shall be minimized and removed.

City of Roseville General Plan

The City of Roseville General Plan includes goals and policies aimed at improving air quality in Roseville and coordinating with the PCAPCD's plans. See Appendix C for a complete list of all applicable City goals and policies.

Department of Public Works Construction Standards, Section 111

The City of Roseville has adopted construction standards that apply to all projects within the City limits. These standards require projects to meet specific engineering and design requirements. The following

requirements from Section 111 of the Construction Standards would minimize fugitive dust and PM_{10} during construction activities:[89]

> 111-3 Installation
>
> 3. Dust/Mud Control
>
> a. Adjacent Streets—Adjacent street frontages shall be swept at least once a day to remove silt and other dirt which is evident from construction activities.
>
> b. Construction vehicles—The Contractor is responsible for cleaning construction vehicles leaving the site on a daily basis to prevent dust, silt, mud, and dirt from being released or tracked off site.
>
> c. Grading Spoils—Dry stockpiles of soil shall be watered to prevent the generation of airborne dust. Trucks transporting dry soil shall be covered with tarpaulins.
>
> d. Water—Water shall be sprayed on all exposed earth surfaces during clearing, grading, earth moving, and other site preparation activities. The exposed earth shall be watered throughout the day to minimize dust. The Contractor shall obtain a hydrant permit from the Environmental Utilities Department.
>
> e. Wind Allowances – Grading activities shall be restricted or halted when winds exceed 15 miles per hour or as deemed necessary by the Public Works Inspector.

City of Roseville Transportation Systems Management Ordinance

The City's Transportation Systems Management (TSM) Ordinance would require companies with more than 50 employees to prepare a TSM plan that promotes the use of alternative modes of transportation. Operational emissions exceeding Placer County APCD thresholds would be slightly reduced as a result of this ordinance.

Assembly Bill 2588

Assembly Bill (AB) 2588 provides regulation for over 200 air toxics to minimize their effects requiring the installation of BACT in facilities exceeding the 10 in 1 million health risk.

West Roseville Specific Plan

The WRSP includes features that would minimize operational emissions containing ROG, NOx, PM_{10} and CO. The following measures are required to reduce the generation of these operational emissions:

- Class II and III on-street bikeway system.
- Class I bikeway system that connects all aspects of the plan area.
- Development of a Village Center that promotes the pedestrian over the automobile.
- Design streets to maximize pedestrian access to transit stops.
- Preparation of a Transportation System Management Plan for employers with 50 or more employees.
- Park and ride lots.

[89] City of Roseville. *Department of Public Works Construction Standards.* May 2001. Pp GR2-GR3.

4.4.4 Impacts and Mitigation Measures

Methods of Analysis

Air quality impacts fall into two categories: short-term emissions due to construction and long-term impacts due to project operation. Impacts in each category can be classified as having effects on a regional or local scale. Project grading and construction equipment would create PM_{10}, ROG and NO_x on a short-term or temporary basis. Long-term operational emissions would consist of vehicle emissions and area source emissions such as fireplaces, woodstoves, industrial operations and landscaping equipment. Motor vehicle use would be the primary long-term source of additional O_3 and CO resulting from project operation.

When evaluating traffic-related air quality impacts, analysis depends on the same assumptions made in Section 4.3, Transportation, because traffic volumes associated with the SOI Amendment Area as a whole cannot be determined by simply adding the new volumes attributed to the WRSP and Remainder Area components since the traffic model utilized redistributes trips based on changes in regional land use. Changes in jobs and housing may change community patterns, and redistribution of trips causes changes in traffic volumes throughout the model network, including both increases and decreases in volume on roadways. Therefore, for this section, the air quality impacts for the SOI Amendment Area as a whole are analyzed independently of the analysis for the WRSP and Remainder Area.

Operational impacts on local CO concentrations were quantified using the CALINE4 model and the traffic data provided in Section 4.3, Transportation and Circulation. Model output results are located in Appendix H.

The CARB's URBEMIS7G emission estimation program was used to quantify potential emissions from construction activities and vehicle trips. Model output results are located in Appendix H. The assumed average winter temperature was 50 degrees and the average summer temperature was 85 degrees. For operational emissions, it was assumed that 10 percent of the homes would have wood-burning stoves and 10 percent of all homes would have traditional fireplaces. The remaining 80 percent were assumed to have no wood burning appliances. It was also assumed that an average of one cord of wood would be burned per season per home within the WRSP and Remainder Area. It should also be noted that the modeling assumptions used for woodstove emissions were very conservative. Given the average winter temperature in the SOI Amendment Area is approximately 50 degrees, wood burning devices are infrequently used and it is possible that residences within either the WRSP or Remainder Area would not result in the addition of any wood burning stoves. Modeling also assumes that one cord of wood would be burned during a season. For the reason discussed above, it is unlikely that an entire cord of wood

would be burned by 10 percent of residents with homes. Finally, emissions associated with wood burning stoves occur only during the winter months, and are not produced year round like many other area source emissions. In addition, new homes would be required to install only EPA-certified wood burning stoves, which have reduced emissions compared to traditional stoves.

Modeling assumptions did not include the use of architectural coatings, because information on the extent of use of such coatings was not available.

It was assumed that 20 percent of the WRSP and Remainder Area would be paved. Each land use has a trip generation rate. Land use parameters entered into the model were consistent with those used in the traffic analysis. The double counting correction was on for vehicle emission modeling to prevent the individual trips within the WRSP from being counted twice (i.e., a trip from home to the store would be counted as one trip instead of two). The generation rates would normally count that trip as two since the store attracts the trip and the home generates the trip.

For construction emissions, it was assumed that all construction equipment would be diesel-powered. Use of construction equipment was evenly distributed between all equipment types, but the pieces of heavy equipment that were identified as defaults by the model were weighted at a 2:1 ratio compared to other types of equipment. When modeling PM_{10} construction emissions, it was assumed that a total of 22 pieces of construction equipment would be operating simultaneously and that a maximum of 10 acres would be disturbed within any 24-hour period. For most subdivisions, the grading of 10 acres per day is a conservative assumption. Construction was assumed to take place starting in 2004.

Specific air quality data for each impact are discussed in detail below. The baseline for the analysis in this section is buildout of the City's General Plan and approved projects.

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area could:

- Cause or contribute to local CO concentrations exceeding 20 ppm over a 1-hour averaging period or 9 ppm over an 8-hour averaging period at worst-case locations near congested intersections;
- Result in construction or operational emissions that would exceed the following thresholds established by the PCAPCD:
  - ROG: 82 lb/day
  - NO_x: 82 lb/day

- › PM_{10}: 82 lb/day
- › CO: 550 lbs/day

- Exceed the toxic air contaminants health risk level of 10 in 1 million;
- Obstruct the goals of relevant air quality plans, particularly the 1994 Sacramento Area Regional Ozone Attainment Plan; or
- Expose sensitive receptors to objectionable odors emitted from existing or proposed sources.

Impacts

IMPACT 4.4-1:	FUGITIVE DUST AND PM_{10} FROM GRADING, AND TRENCHING ACTIVITIES.		
Applicable Policies and Regulations:	PCAPCD Rules 205 and 207 City of Roseville Construction Standards, Section III		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant	Significant
Mitigation Measures:	MM 4.4-1 (Dust control measures) (WRSP) MM 4.4-2 (Dust control policies) (Remainder Area)	MM 4.4-1 (Dust control measures)	MM 4.4-2 (Dust control policies)
Significance after Mitigation:	Short-term Significant and Unavoidable	Short-term Significant and Unavoidable	Short-term Significant and Unavoidable

SOI Amendment

Construction activities associated with development within the proposed project area would consist of clearing of vegetation, excavation, trenching and grading, which would temporarily increase particulate (dust) emissions. In addition, construction vehicles traveling on unpaved surfaces would generate dust, as would wind blowing over exposed earth at active construction sites. These emissions could contribute to regional fugitive dust and PM_{10} air pollution problems. The generation of dust during construction activities could adversely affect sensitive receptors, including construction workers, and would exceed the PCAPCD thresholds. Dust caused by construction activities could exacerbate existing respiratory problem such as asthma. Dust can also adversely affect children and the elderly who are more susceptible to respiratory illnesses.

Construction emissions associated with construction of the SOI Amendment Area are estimated to be 361.79 lbs/day, assuming that construction is occurring in both the WRSP and Remainder Areas at the same time. Because these would exceed PCAPCO thresholds, this is considered a significant impact. Development of the SOI Amendment Area would occur incrementally in a series of focused project areas

over a number of years, so the entire area would not likely be graded at one time. Unlike other sources of air pollutants, grading activities only occur once so that emissions associated with grading activities are finite.

The City of Roseville has construction standards, described earlier, that would minimize the creation of dust during construction activities.

The PCAPCD Rule 205, Nuisance, limits the amount of PM_{10} that can be generated during construction activities. Rule 205 states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public.

PCAPCD Rule 207 Particulate Matter would limit the amount of PM_{10} generated during construction activities. Rule 207 states that a person shall not release or discharge into the atmosphere from any source or single processing unit, particulate matter in excess of 0.1 grains per cubic foot of gas at standard conditions. PCAPCD Rule 228 identifies specific measures that must be implemented for all construction projects in Placer County.

MM 4.4-1 and MM 4.4-2 would ensure dust control measures are in place to reduce fugitive dust associated with project construction. In combination with Rules 205, 207, and 228, these measures could reduce emissions below PCAPCD thresholds, if grading activities were limited to 20 acres or less. However, grading could occur in several areas of the SOI Amendment Area at one time, and on more than 20 total acres per day. Because grading activity would end once a project is under construction, this impact is considered a **short-term significant and unavoidable impact**.

West Roseville Specific Plan

Construction associated with the WRSP is estimated to generate as much as 180.64 lbs/day of PM_{10}, which would exceed PCAPCD's thresholds. PM_{10} emissions would fluctuate in accordance with the amount of construction activities and at times would be less than those emissions presented in Table 4.4-5. Although compliance with the City of Roseville Construction Standards and the policies in the WRSP would minimize PM_{10} emissions generated during construction activities, the amount of emissions generated would still exceed the PCAPCD thresholds. This is considered a significant impact.

MM 4.4-1 would reduce the amount of dust generated by construction by requiring covering all trucks that transport sand, soil and other loose materials, prohibiting open burning of vegetation and reducing traffic speeds on all unpaved roads. With implementation of the existing rules and regulations and the WRSP along with implementation of MM 4.4-1, PM_{10} emissions associated with construction activities

could be reduced below the PCAPCD thresholds when grading occurs on fewer than 20 acres per day. However, two or more areas within the WRSP could be simultaneously under construction, thereby resulting in higher emissions than those presented in Table 4.4-5. Therefore, this impact would be considered **short-term significant and unavoidable** impact.

Table 4.4-5 Construction Emissions (lbs/day)

	ROG (lbs/day)	NOx (lbs/day)	PM_{10} (lbs/day)	CO (lbs/day)
WRSP				
Grading	33.86	418.35	135.86	--
Construction[1]	50.47	62.50	11.99	118.53
Stationary Equipment	1.85	1.51	0.09	--
Mobile Equipment	30.75	333.82	32.7	--
Subtotal	**116.92**	**816.18**	**180.64**	**118.53**
Remainder Area				
Grading	33.86	418.35	135.86	--
Construction[1]	52.34	65.15	12.50	123.56
Stationary Equipment	1.85	1.51	0.09	--
Mobile Equipment	30.75	333.82	32.7	--
Subtotal	**118.80**	**818.83**	**181.14**	**123.56**
Total SOI Amendment Area				
Grading	67.72	836.7	271.72	--
Construction[1]	102.81	127.65	24.49	242.09
Stationary Equipment	3.7	3.02	0.18	--
Mobile Equipment	61.5	667.64	65.4	--
Total	***235.73***	***1635.01***	***361.79***	***242.09***
Placer County APCD Thresholds	82	82	82	550
Exceed Threshold?				
WRSP	Yes	Yes	Yes	No
SOI Remainder Area	Yes	Yes	Yes	No
Total	***Yes***	***Yes***	***Yes***	***No***

NOTE:
1. For ROG emissions, includes construction worker trips and Asphalt offgassing.

SOURCE: EIP Associates 2003. Air quality model outputs are provided in Appendix F.

Remainder Area

As with the WRSP, construction in the Remainder Area would generate PM_{10}. As indicated in Table 4.4-5, PM_{10} emissions associated with the construction of only the Remainder Area are estimated to be 181.14 lbs/day. These emissions would vary by day, depending on the amount of grading, and if multiple projects were graded simultaneously within the Remainder Area, PM_{10} unmitigated emissions could be higher or lower than those presented in Table 4.4-5. MM 4.4-2 requires that dust control measures be implemented. Such measures could include covering all trucks transporting sand, soil or other loose material, prohibiting open burning of vegetation, and reducing traffic speeds on all unpaved roads.

Compliance with Rule 205 and Rule 207 as well as City regulations and with MM 4.4-2, would reduce that PM_{10} emissions associated with construction activities. However, because the amount of grading on a single day could emit PM_{10} that exceeds PCAPCD thresholds, this is considered a **short-term significant and unavoidable** impact.

IMPACT 4.4-2	CONSTRUCTION EMISSIONS.		
Applicable Policies and Regulations:	PCAPCD Rules 217 and 218		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant	Significant
Mitigation Measures:	MM 4.4-3 (Reduction of construction emissions) (WRSP) MM 4.4-4 (Reduction of construction emissions) (Remainder Area)	MM 4.4-3 (Reduction of construction emissions)	MM 4.4-4 (Reduction of construction emissions)
Significance after Mitigation:	Short-term Significant and Unavoidable	Short-term Significant and Unavoidable	Short-term Significant and Unavoidable

SOI Amendment

Development of the SOI Amendment Area would result in NO_x, ROG, and CO emissions generated by the use of mobile construction equipment for development within the WRSP as well as for off-site improvements such as roadway or infrastructure improvements. Construction equipment is frequently diesel-fueled, which generates more pollutants than construction equipment that uses gasoline. Given the size of the SOI Amendment Area, and the intensity of land uses that could occur, construction activities would generate substantial quantities of NO_x, ROG, and CO emissions, and would exceed the PCAPCD thresholds of 82 pounds per day for ROG and NO_x. In addition to exhaust from construction equipment, the use of architectural coatings and asphalt paving generate emissions. These additional activities would result in the generation of ROGs, which are ozone precursors and ultimately result in the creation of ozone.

As shown in Table 4.4-5, the total construction emissions associated with the development of the SOI Amendment Area are estimated to be approximately 235.73 lbs/day of ROG, 1,635.01 lbs/day of NO_x, and 361.79 lbs/day of PM_{10}. Because these levels would exceed PCAPCD thresholds, this is considered a significant impact. Compliance with Rule 217 (discussed below) as well as MM 4.4-3 and MM 4.4-4 would reduce emissions but not to a level that is less than the PCAPCD thresholds. Because development

of the SOI Amendment Area would still exceed the PCAPCD thresholds even with mitigation, this is considered a **short-term significant and unavoidable** impact.

West Roseville Specific Plan

As shown in Table 4.4-5, construction in the WRSP is predicted to generate emissions of 116.92 lbs/day for ROG, 816.18 lbs/day for NO_x and 118.53 lbs/day for CO. Construction activities would exceed PCAPCD thresholds for both ROG and NO_x, so this is a significant impact. It should be noted that construction emissions are considered short-term emissions because they would only occur during the construction period that is considered short-term when compared to the life of the project itself.

The PCAPCD has adopted Rule 217, which states that a person may not discharge ROGs into the atmosphere by the use of cutback or emulsified asphalts, and Rule 218, which limits the amounts of VOC in architectural coatings. Implementation of the rules would reduce the amount of pollutants generated by asphalt paving and the application of architectural coatings.

Because emissions generated by construction equipment would still exceed the PCAPCD thresholds, even when complying with existing rules and regulations, additional mitigation measures are required. MM 4.4-3 requires that 20 percent of heavy-duty off-road equipment be powered by CARB certified off-road engines and would minimize idling time of construction equipment, which would minimize ROG and NO_x emissions generated during construction activities. MM 4.4-3 would reduce emissions but not to a level that is less than the PCAPCD thresholds. Therefore, this impact would remain **short-term significant and unavoidable**.

Remainder Area

As shown in Table 4.4-5, construction in the Remainder Area is estimated to result in emissions of 118.80 lbs/day for ROG and 818.83 lbs/day for NO_x. Construction emissions for the Remainder Area would exceed PCAPCD thresholds for ROG and this is a significant impact. As previously noted, compliance with PCAPCD Rule 217 and Rule 218 would reduce construction emissions. MM 4.4-4 would require appropriate construction emission measures such as use of heavy-duty off-road equipment powered by CARB certified off-road engines, minimize idling time of construction equipment, emissions generated prohibiting open burning of vegetative material, and requiring a weekly evaluation of project-related on and off road heavy-duty engines. Nonetheless, even with these mitigation measures, development of the Remainder Area would still exceed the PCAPCD thresholds, resulting in a **short-term significant and unavoidable** impact.

IMPACT 4.4-3	OPERATIONAL EMISSIONS.		
Applicable Policies and Regulations:	Roseville's Transportation Systems Management Ordinance		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant	Significant
Mitigation Measures:	MM 4.4-5 (Reduction of operational emissions) (WRSP) MM 4.4-6 (Operational emissions policies) (Remainder Area)	MM 4.4-5 (Reduction of operational emissions)	MM 4.4-6 (Operational emissions policies)
Significance after Mitigation:	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

SOI Amendment

Long-term air quality within the SOI Amendment Area as well as within the air basin would be adversely affected by both mobile sources and area source emissions. Mobile sources include criteria air pollutant emissions, primarily from the addition of new mobile sources to the area (e.g., automobiles). Area source emissions, which are associated with operation of residential units, would be generated by fuel combustion in woodstoves, fireplaces, and landscaping equipment. Woodstoves and fireplaces contribute to the degradation of air quality during winter months, which is approximately four months of the year, while gas-operated landscaping equipment contributes to the degradation of air quality during the summer months. The amount of air pollution generated by each source is listed in the model outputs included in Appendix H.

As shown in Table 4.4-6, development of the SOI Amendment Area would result in a total of 14,092.72 lbs/day of ROG, 1,151.15 lbs/day of NO_x, 15,187.81 lbs/day of CO, and 4,150.65 lbs/day of PM_{10} during winter months, and a total of 1,430.14 lbs/day of ROG, 729.46 lbs/day of NO_x, 5,462.16 lbs/day of CO, and 1,294.85lbs/day of PM_{10} during the summer smog season. This is considered a significant impact. MM 4.4-5 and MM 4.4-6 would reduce operational emissions but not below PCAPCD thresholds, for the reasons discussed below. Therefore, the impact would be **significant and unavoidable**.

West Roseville Specific Plan

Mobile Sources

Mobile source criteria air pollutant emissions associated with WRSP traffic were calculated using URBEMIS 2002 emissions software using the trip generation rates presented in the traffic analysis. Table

4.4-6 lists the air pollutant emissions associated with the WRSP. As indicated in Table 4.4-6, vehicle emissions associated with the WRSP would exceed PCAPCD thresholds for ROG, NO_x, CO, and PM_{10} during both the winter and summer seasons.

Table 4.4-6 Comparison of Placer County APCD Thresholds and Project Emission Levels in Pounds per Day Before Mitigation

		WRSP				Remainder Area				WRSP and SOI Amendment
		Emissions (lb/day)			Operation Exceeds Threshold?	Emissions (lb/day)			Operation Exceeds Threshold?	
Thresholds		Area Source	Vehicle	Total Operational Emissions		Area Source	Vehicle	Total Operational Emissions		Total Operational Emissions
Winter Emissions										
ROG	82	7,231.50	269.33	7,500.83	Yes	6,350.71	241.15	6,591.89	Yes	14,092.72
NO_x	82	312.40	295.65	608.05	Yes	276.98	266.12	543.10	Yes	1,151.15
CO	550	10,522.47	2,853.90	13,376.67	Yes	9,241.90	2,569.24	11,811.14	Yes	15,187.81
PM_{10}	82	1,520.89	680.83	2,201.72	Yes	1,335.61	613.33	1,948.93	Yes	4,150.65
Summer Emissions										
ROG	82	429.61	334.99	764.60	Yes	377.42	288.12	665.54	Yes	1,430.14
NO_x	82	174.14	210.39	384.54	Yes	155.57	189.36	344.92	Yes	729.46
CO	550	114.07	2,760.63	2,874.70	Yes	100.97	2,486.49	2,587.46	Yes	5,462.16
PM_{10}	82	0.37	680.83	681.20	Yes	0.33	613.33	613.65	Yes	1,294.85

SOURCE: URBEMIS 2002, EIP Associates, November 2003.

Area Sources

Area source emissions were quantified using URBEMIS 2002 for the WRSP. Model outputs for area sources operating under wintertime (worst-case day) conditions are presented in Table 4.4-6. Area source emissions associated with the WRSP would exceed PCAPCD thresholds for ROG, NO_x, CO and PM_{10} during both the winter and summer seasons.

It is important to note that it is likely new homes constructed as part of the WRSP would include natural gas fireplace inserts. PCAPCD has not yet established any method to model these emissions. These fireplace inserts emit far fewer emissions than conventional fireplaces.

Total Operational Emissions for WRSP

As presented in Table 4.4-6, both vehicular and area source emissions for the WRSP would exceed thresholds established by the PCAPCD during both the winter and summer seasons. Total operational emissions associated with the WRSP would generate 7,500.83 lbs/day of ROG, 608.05 lbs/day of NO_x, 13,376.67 lbs/day of CO and 2,201.72 lbs/day of PM_{10} during the winter, and 764.60 lbs/day of ROG,

384.54 lbs/day of NO_x, 2,874.70 lbs/day of CO, and 681.20 lbs/day of PM_{10} during the summer smog period. This would be a significant impact.

The WRSP provides a pedestrian/bikeway network of lanes along streets and "informal" paved and unpaved bike routes. A connection to the City's existing bike trail along Pleasant Grove Creek would be extended through the WRSP area, as would connections to existing bike lanes located along Pleasant Grove Boulevard and Blue Oaks Boulevard. The pedestrian/bicycle pathway would provide convenient, safe access to retail services, schools, and parks.

Employers within the WRSP would be required to comply with the City of Roseville's Transportation System Management (TSM) Ordinance, which requires companies with more than 50 employees to prepare a TSM plan that promotes the use of alternative modes of transportation including public transit and carpools/vanpools, flexible work hours, and ridesharing.

It is also proposed that Roseville Transit services be expanded to the WRSP as demand for these services occurs and funds become available. The WRSP will also include park and ride lots.

The WRSP has also included a list of procedures for reducing air emissions associated with operational activities. These procedures include developing practices that would maximize energy conservation, improve the thermal integrity of buildings, use window glazing, wall insulation and effective ventilation methods, using energy efficient appliances, installing electric vehicle recharging circuits in residential garages and parking lots, designing the site to maximize access to existing transit lines, providing lighted transit shelters and multimodal transfer stations for transit uses, and designing streets to maximize pedestrian access to transit stops. Since the use of alternative forms of transportation is dependent upon an individual's preference, it is not possible to quantify how these amenities would reduce potential emissions. However, these measures would reduce the amount of emissions generated by WRSP development. In addition, MM 4.4-5 would further minimize the amount of operational emissions by requiring the planting of native plants (to minimize the use of lawn mowers and leaf blowers), allowing only Phase II EPA certified woodburning stoves and other measures. Nonetheless, operational emissions would substantially exceed the PCAPCD thresholds even with implementation of the above policies, rules, regulations and mitigation measures. This is a **significant and unavoidable** impact.

Remainder Area

Emissions for the Remainder Area were modeled assuming that 5,916 single family homes, 1,487 multi-family homes, 589,000 retail square footage, 647,000 square feet of business parks, 496 acres of parks, an elementary school, and a middle school would be constructed. It is important to note that this is a

reasonable future land use scenario developed for analysis purposes only and is based on assumptions; future development could result in different square footage and allocation of development.

As presented in Table 4.4-6, both vehicular and area source emissions for only the Remainder Area would exceed thresholds established by the PCAPCD. Operational emissions associated with the Remainder Area would generate 6,591.86 lbs/day of ROG, 543.10 lbs/day of NO_x, 11,811.14 lbs/day of CO and 1,948.93 lbs/day of PM_{10} during the winter, and 665.54 lbs/day of ROG, 344.92 lbs/day of NO_x, 2,587.46 lbs/day of CO and 613.65 lbs/day of PM_{10} during the summer. Because these levels exceed PCAPCD thresholds, this is considered a significant impact.

Currently no specific development or land use plans are available for the Remainder Area, so it cannot be assumed to include precisely the same features as the WRSP. Therefore, MM 4.4-6 requires that specific plans and/or development plans include emission-reducing measures such as transit and pedestrian-oriented facilities, bike paths, and the measures identified in MM 4.4-5. These measures would reduce the generation of ROG, NO_x and CO emissions. Nonetheless, operational emissions would continue to exceed PCAPCD thresholds, resulting in a **significant and unavoidable** impact.

IMPACT 4.4-4	EXPOSURE OF SENSITIVE RECEPTORS TO UNACCEPTABLE TAC LEVELS.		
Applicable Policies and Regulations:	Assembly Bill 2588, Statute 1987, Ch. 1252, Health and Safety Code 44300 et. seq.		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant	Significant
Mitigation Measures:	MM 4.4-7 (Review Uses by PCAPCD)	MM 4.4-7(Review uses by PCAPCD)	MM 4.4-7(Review uses by PCAPCD)
Significance after Mitigation:	Less Than Significant	Less Than Significant	Less Than Significant

SOI Amendment/West Roseville Specific Plan/Remainder Area

TAC Levels

There are multiple potential sources of TACs within and near the SOI Amendment Area, including stationary and mobile sources. Existing and future stationary sources include the PGWWTP and proposed industrial development in the WRSP (the potential Roseville Energy Park is discussed in Chapter 5, CEQA Considerations, Cumulative Impacts). Mobile sources of TACs include construction equipment and heavy duty trucks that use diesel fuel, which has been identified as a source of TACs. Individual sources are discussed below.

Pleasant Grove Wastewater Treatment Plant

The PGWWTP is a stationary source that will emit toxic air contaminants. Studies have shown that wastewater treatment plants can release several types of toxic air contaminants and chemicals into the atmosphere. These chemicals can be present in the wastewater as it enters the plant or may be formed during the various treatment processes. Large amounts of VOCs such as benzene, chloroform, paradichlorobenzene, ethylene dichloride, methyl chloroform, methylene chloride, perchlorethylene, toluene, trichlorethylene, vinylidene chloride, and xylenes can be released in liquids processing. Recently recorded levels of VOCs (1999-2001) are presented in Table 4.4-7. These measurements were taken at the North Sunrise monitoring station, which is the air toxics monitoring station nearest the SOI Amendment Area. As noted in Table 4.4-7, ambient benzene levels currently are measured at a risk level of 36 in 1 million.

Table 4.4-7 Volatile Organic Compound Levels in the Project Vicinity

VOC	1999		2000		2001	
	Maximum Level Detected	Estimated Risk	Maximum Level Detected	Estimated Risk	Maximum Level Detected	Estimated Risk
Perchloroethylene	0.09	1	0.24	2	0.06	n/a
Methylene Chloride	0.3	0.8	1.2	2	2.8	n/a
Benzene	1.1	32	1.3	36	1.4	44
Chloroform	0.06	0.8	0.08	0.7	0.05	n/a
Methyl Chloroform	0.06	n/a	0.13	N/a	0.06	n/a
Toluene	2.2	n/a	2.2	N/a	1.4	n/a

SOURCE: www.carb.ca.gov accessed August 22, 2002

According to the EIR prepared for the Roseville Regional Wastewater Treatment Service Area Master Plan, which includes the existing City's Dry Creek WWTP (DCWWTP), the City of Roseville prepared an inventory of TACs in May of 1994 for the DCWWTP. This inventory concluded that a health risk assessment was not warranted for the DCWWTP because TAC emissions were relatively low. TAC levels for the PGWWTP are also expected to be low because of the similar types and quantities of chemicals that will be used in its operation.

Even though TAC levels would be below applicable risk levels, consistent with mitigation identified in the Roseville Regional Wastewater Treatment Service Area Master Plan EIR, the WRSP would allow only non-residential uses within 1,000 feet of the PGWWTP so that residents would be partially buffered from any PGWWTP TACs.

CEQA establishes requirements for projects located within one-fourth mile of a school if the project involves construction or alteration of a facility that might be reasonably anticipated to emit hazardous or

acutely hazardous materials. The lead agency is required to consult with the affected school district regarding the potential impact of the project and notify the district, in writing, prior to project approval. The potential impact associated with emission of TACs within one-fourth mile of a school is addressed in the Hazardous Materials and Public Safety Section of this EIR.

For clarification purposes it should be noted that the 1,000-foot PGWWTP buffer was established by the Roseville Regional Wastewater Treatment Service Area Master Plan EIR. It is separate from, and has no relation to, the one-fourth mile school siting standard set fourth in CEQA. Furthermore, the 1,000-foot buffer applies only to the PGWWTP, not the proposed Roseville Energy Park or any other industrial or public utility facilities.

Other Sources

TACs can be emitted from a variety of common sources, including gasoline stations, automobiles, dry cleaners, and painting operations. Sources such as these would likely be developed in the SOI Amendment Area. Another primary source of TACs would be industrial sources that could be developed within the WRSP. Because no specific land uses or types of uses have been identified for the industrial areas, it is not possible to determine or assess the level of risk that could be generated.

In 1998 the CARB identified diesel particulate matter as a toxic air contaminant. The risk to sensitive receptors associated with exposure to this pollutant depends upon a number of factors, including the wind direction, wind speed, concentration of the diesel particulate matter, the length of exposure, the existing concentration of diesel particulate matter in the air, and the distance from the source. However, existing background concentrations of diesel particulate matter already exceed the 10 in 1 million risk threshold. Diesel vehicles including heavy-duty trucks traveling to and from commercial and industrial areas and school buses would be associated with development of the SOI Amendment Area, and would also generate TACs.

As previously noted, TACs have historically been associated with point sources or area sources. When a stationary source or area source generates TACs, the PCAPCD evaluates the emissions and if necessary requires the installation of Best Available Control Technology (BACT). Diesel particulate matter is unique in that it is generated by mobile sources, which are currently unregulated by all air districts, including the PCAPCD. However, mobile source emissions, including diesel particulate matter, are regulated by the CARB, a State entity. The CARB has derived a number of strategies for reducing diesel particulate matter. These strategies include retro-fitting existing engines by installing diesel particulate filters, using alternative fuels, and stricter emission control standards for all new engines. The CARB is also considering proposed fuel regulations that would result in the reformulation of existing diesel fuel.

However, all of these measures must be implemented by the CARB and not the PCAPCD or the City of Roseville. According to the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles, the CARB tentatively proposes implementation of the above strategies between 2002 and 2008.[90]

Total TACs

As noted above in the Regulatory Setting, the TAC health risk threshold is 10 in 1 million. Each facility that emits TACs is required to comply with AB 2588 and is closely regulated by the local air district. If any facility is expected to exceed the 10 in 1 million health risk, then BACT must be installed to reduce the health risk to a level that is less than the thresholds.

As previously mentioned, according to the EIR prepared for the Roseville Regional Wastewater Treatment Service Area Master Plan, which includes the existing City's Dry Creek WWTP (DCWWTP), the City of Roseville prepared an inventory of TACs in May of 1994 for the DCWWTP. This inventory concluded that a health risk assessment was not warranted for the DCWWTP because TAC emissions were relatively low. TAC levels for the PGWWTP are also expected to be low because of the similar types and quantities of chemicals that will be used in its operation. However, no definitive risk data are available for the PGWWTP, and total TACs from the PGWWTP in combination with the TACs from proposed light industrial land uses proposed within the WRSP and diesel particulate matter cannot be quantified at this time because specific uses have not been identified.

Several comments on the NOP expressed concern about locating a school near a facility that emits TACs. Public Resources Code Section 21151.8 (a)(3)(B)(ii) specifies that "no environmental impact report shall be approved for any project involving the purchase of a school site or the construction of a new elementary school or secondary school by a school district unless the governing board of a school district finds that corrective measures required under an existing order by another jurisdiction that has jurisdiction over the facilities will, before the school is occupied, result in the mitigation of all chronic or accidental hazardous air emissions to levels that do not constitute an actual or potential endangerment or public health to persons who would attend or be employed at the proposed school." If the governing board makes this finding, the governing board shall also make a subsequent finding, prior to the occupancy of the school, that the emissions have been mitigated to acceptable levels that do not constitute an actual or potential endangerment to public health.

[90] California Air Resources Board. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel Fueled Engines and Vehicles.* Stationary Source Division, Mobile Source Division. October 2000. Page 25.

The PCAPCD is responsible for ensuring that all stationary sources emitting TACs are in compliance with existing state and Federal regulations and standards. PCAPCD ensures that no individual facility will exceed these standards through permitting requirements, Toxic Emission Inventory Report updates, and inspections. Therefore, any new source (except mobile diesel sources) could not exceed the health risk standards. However, depending upon the amount of emissions from each source, it is possible that combined emissions could exceed the 10 in 1 million Health Risk Threshold. This is considered a significant impact.

MM 4.4-7 requires that each individual user within the WRSP demonstrate how the threshold will not be exceeded by submitting a permit to operate to the PCAPCD. The PCAPCD will review each use. If it is determined that the use may not exceed the threshold, PCAPCD will notify the City. Additional environmental review would be required or the use would need to be modified to ensure it would not, on a cumulative basis, cause the 10 in 1 million threshold to be exceeded at residential and public uses (e.g., parks, schools). Because the Remainder Area is more removed from the PGWWTP and proposed industrial areas than sensitive uses in the WRSP, this measure would protect residents and others in the entire SOI Amendment Area. With this mitigation, the impact would be **less than significant**.

It should also be noted, that the land uses associated with the WRSP are common throughout California and occur in all urban areas where a substantial number of people reside. So, although there is a possibility that the combined risk could exceed the adopted health risk threshold, this risk would not be expected to be any higher than the risk associated with living in any urban area.

IMPACT 4.4-5	CARBON MONOXIDE EMISSIONS AT LOCAL INTERSECTIONS.		
Applicable Policies and Regulations:	None Applicable		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None required	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant	Less Than Significant

SOI Amendment/Remainder Area

The Remainder Area is assumed to develop after the WRSP, and would be integrated into the WRSP roadway system, so traffic-related analyses for the Remainder Area, such as CO levels at intersections, must be done in the context of buildout of the WRSP. Consequently, impacts of the Remainder Area would be the same as those of the full SOI Amendment.

Intersections that are projected to operate at an LOS of D or worse with under 2020 conditions with buildout of the SOI Amendment Area are shown in Table 4.4-8, The highest CO concentration would occur at the intersection of Foothills Boulevard/Blue Oaks and at Vernon St/Cirby Way, with an estimated 1-hour concentration of 4.5 ppm and an estimated 8-hour concentration of 3.3 ppm. Because there would be no violation of either the 1-hour or 8-hour CO standards, this would be a **less-than-significant** impact.

Table 4.4-8 Predicted CO Concentrations (ppm)

Intersection	1-hour Concentration	Threshold	8-hour Concentration	Threshold
Cumulative WRSP				
Harding/Douglas	4.3	20.0	3.1	9.0
Foothills/Blue Oaks	4.4	20.0	3.2	9.0
Cumulative WRSP Plus SOI				
Vernon/Cirby	4.5	20.0	3.3	9.0
Harding-Douglas	4.3	20.0	3.1	9.0
Foothills/Blue Oaks	4.5	20.0	3.3	9.0
Diamond Creek/Blue Oak	4.1	20.0	3.0	9.0

SOURCE: EIP Associates, CALINE 4 modeling results.

West Roseville Specific Plan

Background CO concentrations in the Roseville area are low, and future roadside CO concentrations are expected to decrease from existing roadside CO concentrations despite anticipated increases in traffic volumes due to improved fuel combustion efficiency. Intersections that are projected to operate at an LOS of D or worse under cumulative conditions were modeled using CALINE4 to determine if any violations of the 1-hour 20 ppm and the 8-hour 9 ppm standards would occur. As shown in Table 4.4-8, the highest CO concentration that would occur with development of the West Roseville Specific Plan would occur at the intersection of Foothills Boulevard/Blue Oaks Boulevard with an estimated 1-hour concentration of 4.4 ppm and an estimated 8-hour concentration of 3.2 ppm. Because there would be no violation of either the 1-hour or 8-hour CO standards, this would be a **less-than-significant** impact.

IMPACT 4.4-6	EXPOSURE TO OBJECTIONABLE ODORS		
Applicable Policies and Regulations:	PCAPCD Rule 205		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None required	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant	Less Than Significant

SOI Amendment/West Roseville Specific Plan/Remainder Area

Within the SOI Amendment Area the primary source of odors is the PGWWTP. Odors occur in fresh or incompletely treated wastewater and liquid process side-streams, or raw sludge, screenings, grit, and skimmings containing malodorous matter, and emissions from treatment processes. Aside from odors associated with normal treatment processes, other sources of objectionable odors would be general cleaning activities, anaerobic conditions in treatment units or sewer lines, or the use of solvents. Major sources of odors at wastewater treatment plants typically include the headworks, flow equalization basin, digesters, and sludge dewatering facilities. Other sources of odors within the treatment process include digester gas relief vents on the cover of the anaerobic digesters and the sludge dewatering facilities if the sludge has not been properly digested and stabilized. However, the PGWWTP does not have any digesters and as a result odors are minimized at the treatment plant.

In addition to the treatment facilities, physical/chemical processes could produce odors ranging from moderate to negligible. Primary sedimentation tanks, aeration basins, primary clarifiers, chlorine contact basins, the thickeners, and belt presses can produce varying amounts of minor odors. The secondary clarifiers produce little amounts of odors because the water surface is relatively calm. The PGWWTP is designed to operate without primary sedimentation tanks, primary clarifiers, and chlorine contact basins. The thickeners and belt presses in the PGWWTP are enclosed and include scrubbers that minimize odors generated from this process. As discussed in the environmental setting, perception of odors is subjective and not easily quantifiable.

Odors are affected by the rate, amount and location of meteorological conditions. Atmospheric conditions including wind speed, wind direction and air temperature, in combination with local surface topography, determine odor impacts on sensitive receptors. During high winds, odors are usually diluted. However, during light or calm wind conditions, potential odor impacts are high because dilution is minimized. In addition, odor becomes stronger during warmer weather. The prevailing wind direction

in the SOI Amendment Area is from the southwest. Residents located northeast of the PGWWTP, in the WRSP Area, could therefore be periodically exposed to odors associated with the operation of the plant. In addition, residents near the PGWWTP in any direction could be affected by odors from the plant in weather conditions of increased warmth or calm winds and open-air basins and ponds could result in high concentrations of odors at adjacent properties, particularly in warmer weather conditions, or when winds are low.

No homes would be allowed in the immediate vicinity of the PGWWTP because the City of Roseville requires a 1,000-foot buffer between the PGWWTP and residential areas (see Figure 4.9-2 [PGWWTP 1,000 Foot Buffer Area] in Section 4.9 [Hazards and Public Safety]). A portion of the proposed high school site, generally athletic fields and sporting facilities, would lie within the 1,000-foot buffer, however, all school buildings would lie outside of the buffer. Furthermore, the WRSP proposes 108.5 acres of light industrial and general industrial uses surrounding the PGWWTP, which would act as a barrier by blocking the direct path of drifting odors for residents of both the WRSP and the southern portion of the Remainder Area.

Other potential sources of odors would include restaurants, dry cleaning facilities and gasoline stations in commercial areas throughout the SOI Amendment Area, and light industrial operations in the WRSP Area. For the most part, odors associated with these commercial uses would not be significant since they are commonly found in all urban environments and generally do not elicit complaints from the public.

The PCAPCD Rule 205 regulates odors according to their potential to result in a nuisance to a "considerable number of persons." No quantitative thresholds are in place to govern odors.

With normal operation and with the use of chorine, odors associated with the PGWWTP would be minimal and unlikely to be unpleasant for closest residents (more than 1,000 feet away from the plant). No other sources of substantial odor are anticipated in the SOI Amendment Area. Therefore, this impact would be **less than significant**.

Mitigation Measures

MM 4.4-1: Dust Control (Impact 4.4-1 – WRSP)

- After review and approval by the PCAPCD, the develop, if required, shall apply approved chemical soil stabilizers according to manufacturers specifications, to all inactive construction areas (previously graded areas which remain inactive for 96 hours).
- Reduce traffic speeds on all unpaved surfaces to 15 miles per hour or less.

- Creation of a dust control plan.
- No open burning of vegetation during project construction.
- Reestablishment of ground cover as soon as possible after construction.
- Suspension of grading activities when winds exceed 25 mph.

These mitigation measures could result in impacts to water quality. Please refer to the Best Management Practices discussed in Section 4.8, Hydrology, Water Quality, and Groundwater, for a description of how impacts on water quality will be minimized through erosion control measures.

MM 4.4-2: Dust Control Policies (Impact 4.4-1 – Remainder Area)

Specific plans and/or other development proposals for the Remainder Area shall require dust control measures that are adequate to reduce PM_{10} emissions below PCAPCD thresholds. Such measures could include hydro seeding, covering trucks, reducing traffic speed, prohibiting open burning, or other effective measures.

MM 4.4-3: Reduction of Construction Emissions (Impact 4.4-2 – WRSP)

- The prime contractor shall submit to the PCAPCD a comprehensive inventory (i.e., make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 or more hours for the construction project. District personnel, with assistance from the California Air Resources Board, will conduct initial Visible Emission Evaluations of all heavy-duty equipment on the inventory list.
- An enforcement plan shall be established by the contractor in conjunction with the air district to weekly evaluate project-related on- and off-road heavy-duty vehicle engine emission opacities, using standards as defined in California Code of Regulations, Title 13, Sections 2180–2194. An Environmental Coordinator, CARB-certified to perform Visible Emissions Evaluations (VEE), shall routinely evaluate project-related off-road and heavy-duty on-road equipment emissions for compliance with this requirement. Operators of vehicles and equipment found to exceed opacity limits will be notified and the equipment must be repaired within 72 hours.
- Contractors shall provide a plan for approval by the PCAPCD demonstrating that the heavy-duty (>50 horsepower)_ off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project-wide fleet average 30 percent NO_x reduction and 45 percent particulate reduction compared to the most recent CARB fleet average. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel

products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.

- Minimize idling time to 10 minutes.
- Use low sulfur fuel for stationary construction equipment, if feasible.
- Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.
- Use low emission on-site stationary equipment.

MM 4.4-4: Reduction of Construction Emissions (Impact 4.4-2 – Remainder Area)

Specific plans and/or development proposals for the Remainder Area shall require emission control measures during construction. Such measures, which shall be developed in consultation with the PCAPCD, may include use of heavy-duty off-road equipment included in the inventory powered by CARB certified off-road engines, or other measures to reduce particulate matter and nitrogen oxide emissions through the use of emulsified diesel fuel and/or particulate matter traps.

MM 4.4-5: Reduction of Operational Emissions (Impact 4.4-5 – WRSP)

Following receipt of an application for a Tentative Map (excluding the large lot subdivision map) or Design Review Permit, the City will forward an early consultation notice to the Placer County Air Quality District (PCAQD). Where the PCAQD provides comments on a specific development proposal, the City shall work with PCAQD and the developer to incorporate any measures recommended by the PCAQD into the project. Where the PCAQD does not provide comment on a specific development proposal, the City shall incorporate measures that reduce vehicle emissions and operational emissions from the proposed development. These measures will be implemented through project design, conditions of approval, noticing and disclosure statements, or through the City's plan check and inspection processes. The following is a listing of potential measures that could be implemented for the purpose of reducing vehicle and operational emissions:

<u>Measures Applied to Tentative Maps and Design Review Permits</u>

- Provide tree plantings that meet or exceed the requirements of the City's Community Design Guidelines to provide shading of buildings and parking lots.
- Landscape with native drought-resistant plants (ground covers, shrubs, and trees) with particular consideration of plantings that are not reliant on gas-powered landscape maintenance equipment.
- Require all flat roofs on non-residential structures to have a white or silver cap sheet to reduce energy demand.

- Provide conductive/inductive electric vehicle charging stations and signage prohibiting parking for non-electric vehicles within designated spaces within nonresidential developments.
- Configure parking to minimize traffic interference.
- Provide vanpool parking only spaces to accommodate vanpools in employment areas (e.g., community commercial, business-professional, and industrial uses).
- Provide preferential parking for carpools and vanpools in employment areas (e.g., community commercial, business-professional, and industrial areas).
- All truck loading and unloading docks shall be equipped with one 110/208-volt power outlet for every two-dock doors. Signs shall be posted stating "Diesel trucks are prohibited from idling more than five minutes and trucks requiring auxiliary power shall connect to the 110/208-volt outlets to run auxiliary equipment."
- Provide all day vehicle parking lots and secured bicycle storage near rail stations, transit stops, and freeway access points.
- Develop the Class I, II, and III bikeway system within the plan as identified within the WRSP.
- Develop the Village Center consistent with the WRSP policies that encourage pedestrian travel over use of the automobile.
- Design streets to maximize pedestrian access to transit stops.
- Require site design to maximize access to transit lines, to accommodate bus travel, and to provide lighted shelters at transit access points.
- Develop the plan consistent with the higher residential densities provided around the Village Center, transportation nodes, and transit corridors.
- Wood burning or pellet appliances shall not be permitted in multi-family developments. Only natural gas or propane fired fireplace appliances are permitted.

Measures for Detached Single-Family Residences

- Require electrical outlets to be installed on the exterior walls of both the front and back of residences or all commercial buildings to promote the use of electric landscape maintenance equipment.
- Require installation of a gas outlet in the rear of residential buildings for use of outdoor cooking appliances, such as gas burning barbeques.
- Require installation of gas outlets with ceramic logs in any proposed fireplaces, including outdoor recreational fireplaces or pits.
- Require installation of low nitrogen oxide (NO_x), hot water heaters. (beyond District Rule 246 requirements).

- Require HVAC units be equipped with PremAir catalyst system (or another similar system) if available and economically feasible. The PremAir system is considered feasible if the additional cost is less than 10 percent of the base HVAC unit cost.
- Provide notice to homebuyers of the option to install electric vehicle charging raceways in residential garages.
- Provide notice to homebuyers of incentive and rebate programs available through Roseville Electric or other providers that encourage the purchase of electric landscape maintenance equipment.
- Require wood burning devices to meet U.S. EPA Phase II certification.

In lieu of each individual project implementing their own off-site mitigation program, an applicant may choose to pay an equivalent amount of money into the District's Air Quality Mitigation Fund. The District provides monetary incentives to sources of air pollutant emissions that are not required by law to reduce their emissions. Therefore, the emission reductions are real, quantifiable, and implement provisions of the 1994 State Implementation Plan. The off-site mitigation program has been implemented by a number of projects in Placer County. To the extent feasible, the implementation of any programs resulting from the WRSP in lieu of fees should be used in close proximity to the WRSP and the City of Roseville.

MM 4.4-6: *Operational Emissions Policies (Impact 4.4-3 – Remainder Area)*

Specific plans and/or development proposals for the Remainder Area shall include measures to reduce operational emissions. Such measures may include, but would not be limited to transit and pedestrian-oriented facilities (e.g., park and ride lots, bus stops), bike trails and facilities, energy-saving measures in buildings, as well as the measures described in MM 4.4-5, above. Appropriate measures shall be selected in consultation with the City and PCAPCD.

MM 4.4-7: *Maintain TAC Inventory and CAP (Impact 4.4-4 – SOI Amendment/West Roseville Specific Plan/Remainder Area)*

Industrial users proposed within the WRSP will be required to submit a Permit to Operate to the PCAPCD. The District will review the use and if a proposed industrial project would cause the combined emissions of TACs to exceed the risk standard of 10 in one million at residences or public uses (e.g., schools, park), additional modeling and/or environmental review would be required to demonstrate emissions from that use or other uses in the WRSP Area would be reduced so that the standard is not exceeded. For example, an applicant could propose to retrofit an existing operation in order to lower the total TAC emissions in the WRSP.

4.5 NOISE

4.5.1 Introduction

This section evaluates the potential noise impacts due to and upon development of the WRSP and SOI Amendment Area. Referenced materials include

- *City of Roseville General Plan*
- *City of Roseville Noise Ordinance*
- *Guidelines for Noise Study Reports as Parts of Environmental Impact Reports,* issued by the California Department of Health Services, Office of Noise Control
- *California Environmental Quality Act*
- *Federal Interagency Committee on Noise*

These documents are available for review at the City of Roseville Permit Center, 311 Vernon Street, Roseville, California.

This noise section was prepared in accordance with *Guidelines for Noise Study Reports as Parts of Environmental Impact Reports*, issued by the California Department of Health Services, Office of Noise Control.

In response to the Notice of Preparation comments were raised requesting an analysis of noise sources that could affect school facilities and classrooms and outside areas and traffic noise along Fiddyment Road (see Appendix B). These issues are all addressed in this section.

As discussed in Chapter 1, Introduction, this EIR evaluates the impacts of the WRSP, which would include a Sphere of Influence Amendment and annexation to the City, at a project-specific level. Because a Sphere Amendment is the only action proposed for the Remainder Area (that portion of the SOI Amendment Area outside of the WRSP Area), a program-level analysis is provided for the full SOI Amendment. In order to conduct the analysis, development assumptions are made for the Remainder Area (see Chapter 2, Project Description, for details). Figure 1-1 (SOI Amendment Area) in Chapter 1, Introduction, identifies the boundaries of the SOI Amendment Area, WRSP Area, and Remainder Area.

As discussed in Chapter 4 of this EIR, Environmental Analysis, minor changes have been made to the proposed land uses for the WRSP since publication of the NOP. The number of residential units and the mix of uses have not changed although the acreages for nonresidential uses have been altered slightly. The only noise-related impacts that would be expected from the changes are traffic noise impacts. The

change in the land use plan resulted in a modification to the backbone infrastructure network and a slight increase in trip generation rate (less than 1 percent). This change would not affect the traffic noise analysis, which typically requires a doubling of traffic to create a noticeable increase in traffic noise. With the exception of traffic noise, the noise analyses for this EIR are based on the land use plan shown in Chapter 2, Project Description, of this EIR.

4.5.2 Environmental Setting

Acoustic Terminology

Noise is often defined simply as unwanted sound, and thus is a subjective reaction to characteristics of a physical phenomenon. Researchers have generally agreed that A-weighted sound pressure levels (sound levels) are very well correlated with community reaction to noise. The unit of sound level measurement is the decibel (dB), sometimes expressed as dBA. Variations in sound levels over time are represented by statistical descriptors, and by time-weighted composite noise metrics such as the Day-Night Average Level (L_{dn}), or the Community Noise Equivalent Level (CNEL). Throughout this analysis, A-weighted sound pressure levels will be used to describe community noise unless otherwise indicated. Table 4.5-1 provides examples of maximum sound levels associated with common noise sources.

Table 4.5-1 Typical A-Weighted Maximum Sound Levels of Common Noise Sources

Decibels	Description
130	Threshold of pain
120	Jet aircraft take-off at 100 feet
110	Riveting machine at operators position
100	Shot-gun at 200 feet
90	Bulldozer at 50 feet
80	Diesel locomotive at 300 feet
70	Commercial jet aircraft interior during flight
60	Normal conversation speech at 5-10 feet
50	Open office background level
40	Background level within a residence
30	soft whisper at 2 feet
20	Interior of recording studio

The decibel notation used for sound levels describes a logarithmic relationship of acoustical energy, so that sound levels cannot be added or subtracted in the conventional arithmetic manner. For example, a doubling of acoustical energy results in a change of 3 decibels (dB), which is usually considered to be barely perceptible. A 10-fold increase in acoustical energy yields a 10-decibel change, which is subjectively like a doubling of loudness.

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent sound level (L_{eq}), which corresponds to a steady-state sound level containing the same total energy as a time-varying signal over a given period (usually one hour). The L_{eq} is the foundation of the composite noise descriptors such as L_{dn} and CNEL, and shows very good correlation with community response to noise.

Characteristics of Sound Propagation and Attenuation

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks and airplanes, and stationary sources such as construction sites, machinery, industrial operations. Noise generated by mobile sources typically attenuates at a rate between 3.0 to 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number of objects between the noise source and the receiver. Hard and flat surfaces such as concrete or asphalt have an attenuation rate of 3.0 dBA per doubling of distance. Soft surfaces such as uneven or vegetated terrain have an attenuation rate of about 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate of approximately 6.0 dBA per doubling of distance.

Sound levels can be reduced by placing barriers between the noise source and the receiver. In general, barriers contribute to decreasing noise levels only when the structure breaks the line of sight between the source and the receiver. Buildings, walls, berms, and dense foliage can all act as noise barriers. Buildings, concrete walls, and berms are a great deal more effective at reducing noise levels than wooden walls or dense foliage.

Human Response to Noise

The human response to environmental noise, such as planes, trains and automobiles, is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage such as hearing impairment, but in terms of inhibiting general wellbeing and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities such as sleep, speech, recreation, tasks demanding concentration or coordination, and at the highest intensity levels, hearing loss. When community noise interferes with human activities or contributes to stress, public annoyance with the noise source increases, and the acceptability and the threat to public wellbeing are the basis for land use planning policies preventing exposure to excessive community noise levels. Table 4.5-2 lists a summary of the public health effects of community noise and the noise levels at which they can occur.

Table 4.5-2 Summary of the Public Health Effects of Community Noise and the Noise Levels at Which They Can Occur

	Effect	Level
I.	Noise as a Stressor	
	Increase incidence of high blood pressure that leads to increased risk of cardiovascular disease	85 dBA (long term)
	Vasoconstriction begins that can lead to high blood pressure	70 dBA
II.	Adverse Effect on Task Performance	
	Steady noise	90 dBA
	Irregular noise	All levels
III.	Prenatal and Childhood Effects	(all long term)
	Increased incidence of low birth weight	70 dBA
	High frequency hearing loss in fetuses	85 dBA
	Increased blood pressure in children	75 dBA
	Decreased reading ability, auditory discrimination or language development	65 dBA
IV.	Social Behavior and Mental Health	
	Decreased helpfulness and social interaction	80 dBA
	Increased incidence of mental disorders	90 dBA
V.	Sleep Disturbance	35 dBA
VI.	Speech Interference	65 dBA
	Less than 5 feet between conversant5 to 12 feet between conversant	60 dBA
	Over 12 feet between conversant	55 dBA
VII.	Recreational Hearing Loss	85 dBA (long term)

SOURCE: "The Public Health Effects of Community Noise" by Carol S. Pennenga and Raymond M. Manganelli. Rutgers University, New Brunswick, New Jersey. Presented at the 81st Annual Meeting of the Air Pollution Control Association, Dallas, Texas, June 19-24, 1988.

Fundamentals of Environmental Groundborne Vibration

Vibration is sound radiated through the ground. The rumbling sound caused by the vibration of room surfaces is called groundborne noise. The ground motion caused by vibration is measured as particle velocity in inches per second and, in the U.S., is referenced as vibration decibels (VdB).

The background vibration velocity level is residential and educational areas is usually around 50 VdB. The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

The general human response to different levels of groundborne vibration velocity levels is described in Table 4.5-3.

Table 4.5-3 Human Response to Different Levels of Groundborne Vibration

Vibration Velocity Level	Location
65 VdB	Approximate threshold of perception for many people.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

SOURCE: Federal Railroad Administration 1998

Existing Ambient Noise Levels

The majority of the SOI Amendment Area is undeveloped, with few sources of noise. On-site noise sources include the existing residences near Fiddyment Road, agricultural operations (primarily associated with the pistachio orchard), a kennel on Phillip Road, and construction of the Pleasant Grove Wastewater Treatment Plant (PGWWTP). The SOI Amendment Area is also subject to noise from adjacent roadways, particularly Fiddyment Road, and other noise sources such as aircraft overflights and community activities.

As with all noise sources, the extent to which these sources affect a particular portion of the SOI Amendment Area depends on the proximity to the noise sources. A combination of continuous 24-hour noise level measurements and short-term noise level measurements were conducted in the SOI Amendment Area. The noise level measurements were conducted to determine existing background noise levels and for comparison to projected future noise levels.

Noise measurements were conducted using Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters. The equipment was calibrated prior to use with an LDL Model CA200 acoustical calibrator to ensure accuracy. Figure 4.5-1 (Noise Measurement Sites) shows the locations of the noise level measurements. Table 4.5-4 shows the results of the noise level measurements, and Figures J-1 through J-3 in Appendix J graphically show the results of the continuous noise level measurements.

Sensitive Receptors

There are a number of noise-sensitive receptors adjacent to or near the SOI Amendment Area. The Del Webb and North Roseville Specific Plan areas, both east of Fiddyment Road, have extensive residential development. Larger-lot, more rural residential areas are present within the County, south of Baseline Road. Within the SOI Amendment Area there are several homes.

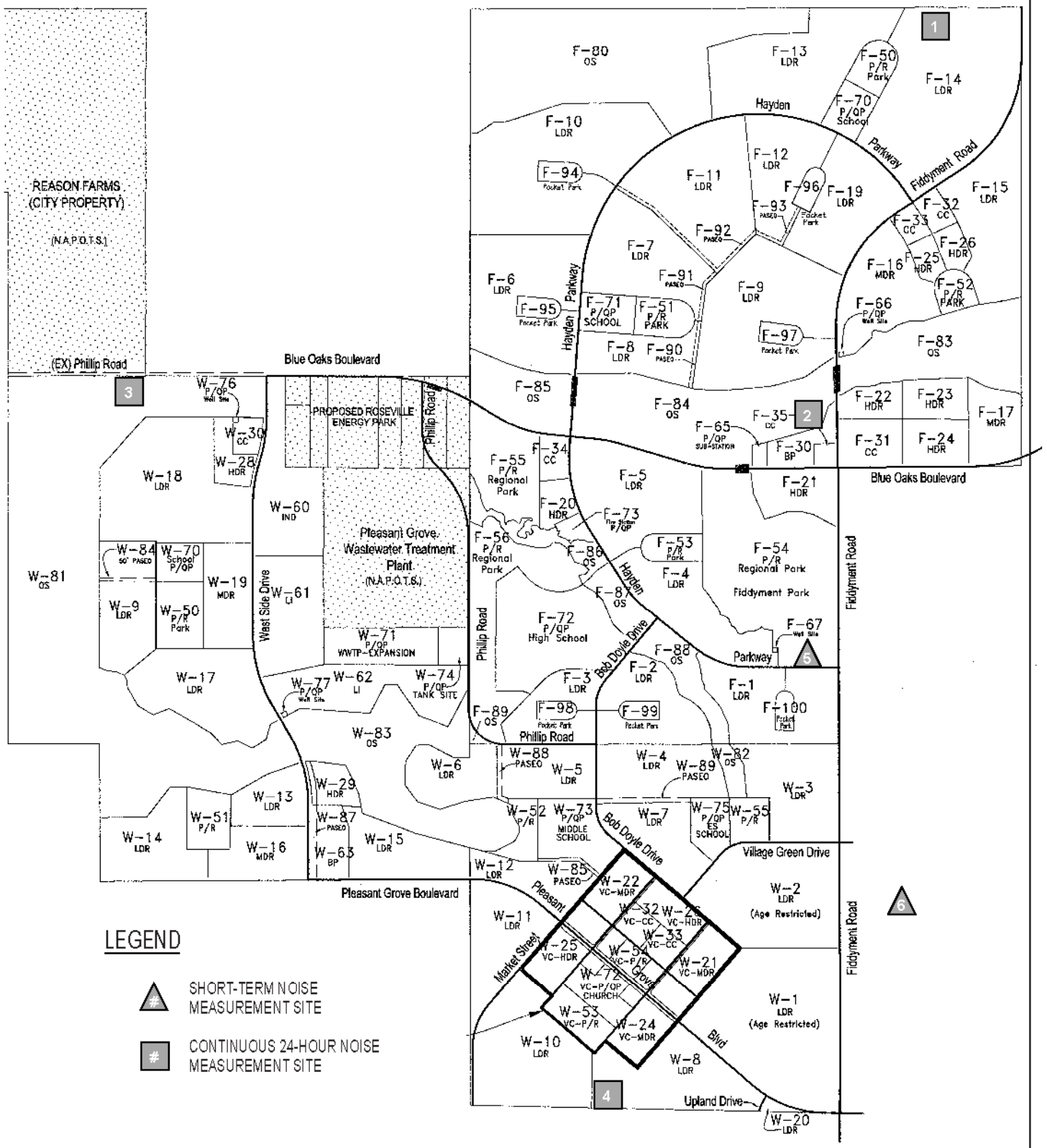


FIGURE **4.5-1**

Noise Measurement Sites

Scale: 1" = 2000'

10659-00

Source: Morton & Pitalo, Inc.

City of Roseville

EIP ASSOCIATES

Table 4.5-4 Community Noise Survey Results

Site	Location	Date	Time	Measured Sound Levels, dB			
				L_{eq}	L_{50}	L_{90}	L_{max}
1	North end of site (500 from Fiddyment Road)	7/28/2000	1:30 P.M.	43	39	34	57
2	Fiddyment and Blue Oaks	7/28/2000	2:05 P.M.	45	41	36	56
3	Blue Oaks, East of Watt Ave	7/28/2000	2:40 P.M.	34	31	30	44
4	South end of site (Near Pleasant Grove Blvd)	7/28/2000	3:30 P.M.	38	36	29	45
5	Fiddyment Road (North of Phillip Rd.)	7/29–7/312000	Continuous 24-Hour	See Figures 4.5-2 and 4.5-3			
6	Burnt Cedar Road (Sun City) adjacent to Fiddyment Road	3/26–27 2003	Daytime Nighttime	59.856.0	5642	4635	7370.5

SOURCE: Bollard & Brennan, Inc. 2000, 2003

Traffic Noise Levels

Existing Traffic Noise Levels

Traffic noise levels in the vicinity of the SOI Amendment Area have been quantified using the Federal Highway Administration (FHWA RD-77-108) traffic noise prediction model. Direct inputs to the model include traffic volumes provided by the project traffic consultant, day/night distribution of traffic volumes, speeds, and truck mix percentages. Table 4.5-5 shows the results of the existing traffic noise level calculations within the SOI Amendment Area. As shown in Table 4.5-5, a number of roadways, including Foothills Boulevard, Baseline Road, Blue Oaks Boulevard, Pleasant Grove Boulevard and Junction Boulevard, have noise levels that exceed the City's residential noise standard of 60 L_{dn}. For this EIR, noise contours were prepared for 2020, assuming buildout of the General Plan and approved development (baseline). Figure 4.5-2 (Traffic Noise Level Contours Without West Roseville Specific Plan) shows the predicted 60 dB L_{dn} noise contour for the City after buildout of currently approved or planned development, based on the 2020 traffic model outputs

Existing and planned residential uses abut these roadways, but for the most part, they are within Specific Plan areas (e.g., North Roseville Specific Plan, North Central Roseville Specific Plan) that required soundwalls along major roadways.

Future Traffic Noise Levels

As development occurs, ambient noise levels increase, primarily due to increases in traffic. Figure 4.5-3 (Traffic Noise Level Contours Including West Roseville Specific Plan) shows the predicted 60 dB L_{dn} noise contour for the City after buildout of currently approved or planned development, based on the 2020 traffic model outputs. Table 4.5-6 provides the distances to the 60 and 65 dB contours, as well as the L_{dn} at 75 feet, for the City at buildout (without the WRSP or SOI Amendment Areas).

Table 4.5-5 FHWA Traffic Noise Prediction Results Existing Conditions

Roadway/Segment	Traffic Noise Levels (L_{dn}, dB) 100 feet from Centerline	Distance to L_{dn} Contours	
		65 dB L_{dn}	60 dB L_{dn}
S.R. 65			
South of Pleasant Grove	77	598'	1289'
Pleasant Grove to Blue Oaks	76	540'	1163'
Blue Oaks to Sunset	76	512'	1104'
Roseville Parkway			
South of Pleasant Grove	66	103'	221'
Pleasant Grove to Washington	61	57'	122'
Washington to Foothills	NA	NA	NA
Sunset			
East of S.R. 65	NA	NA	NA
Foothills			
Baseline to Junction	68	141'	305'
Junction to Pleasant Grove	67	141'	304'
Pleasant Grove to Blue Oaks	64	81'	173'
Woodcreek			
Baseline to Blue Oaks	63	65'	140'
North of Blue Oaks	NA	NA	NA
Fiddyment			
South of Baseline	NA	NA	NA
Baseline to Pleasant Grove	62	65'	140'
Pleasant Grove to Blue Oaks	61	50'	102'
Blue Oaks to Hayden	57	27'	59'
Baseline			
West of Watt	NA	NA	NA
Watt to Fiddyment	66	114'	246'
Fiddyment to Junction	NA	NA	NA
Junction to Woodcreek	64	83'	179'
Woodcreek to Foothills	65	97'	210'
Foothills to Washington	58	62'	133'
Junction			
Baseline to Woodcreek	58	33'	71'
Woodcreek to Foothills	62	63'	135'
Foothills to Washington	NA	NA	NA
Pleasant Grove			
West Side to Fiddyment	NA	NA	NA
Fiddyment to Woodcreek	63	79'	170'
Woodcreek to Foothills	66	109'	236'
Foothills to Washington	67	140'	303'
Washington to Roseville Parkway	67	127'	275'
Roseville Parkway to S.R. 65	66	124'	266'

Table 4.5-5 FHWA Traffic Noise Prediction Results Existing Conditions

Roadway/Segment	Traffic Noise Levels (L_{dn}, dB) 100 feet from Centerline	Distance to L_{dn} Contours	
		65 dB L_{dn}	60 dB L_{dn}
Blue Oaks			
West Side to Hayden	NA	NA	NA
Hayden to Fiddyment	NA	NA	NA
East of Fiddyment	61	57'	122'
West of Woodcreek	61	57'	122'
Woodcreek to Foothills	634	83'	178'
Foothills to S.R. 65	67	126'	272'
S.R. 65 to Sunset	60.0	46'	100'
Watt Ave			
Baseline to Pleasant Grove	NA	NA	NA
Pleasant Grove to Blue Oaks	NA	NA	NA
North of Blue Oaks	NA	NA	NA
West Side			
Baseline to South of Pleasant Grove	NA	NA	NA
Pleasant Grove to Blue Oaks	NA	NA	NA
Hayden			
North of Blue Oaks	NA	NA	NA
South of Blue Oaks	NA	NA	NA

SOURCE: Bollard & Brennan, Inc., 2002

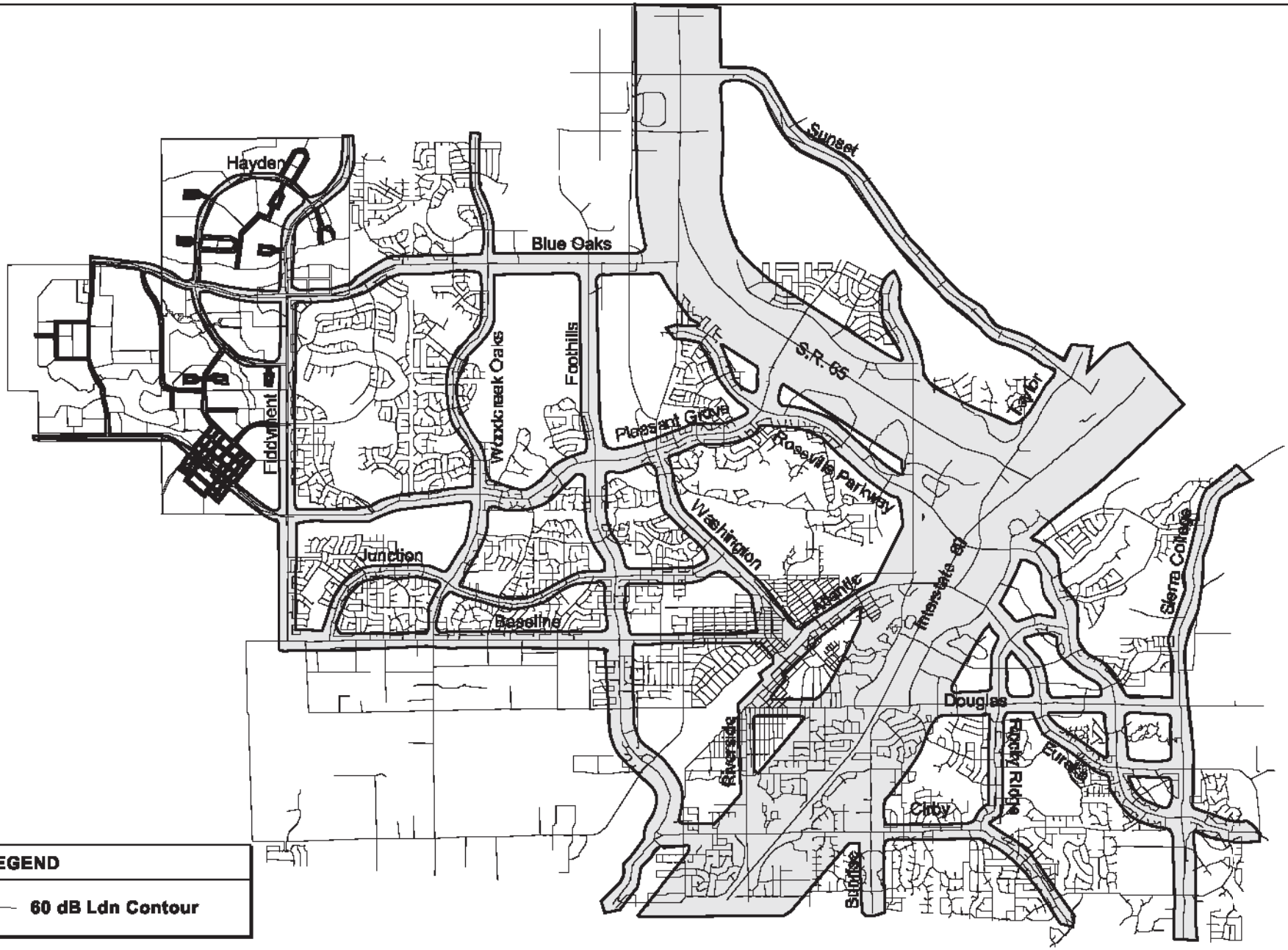


FIGURE **4.5-2**

Traffic Noise Level Contours Without West Roseville Specific Plan

Not to Scale

10659-00

Source: EIP Associates, 2003

City of Roseville

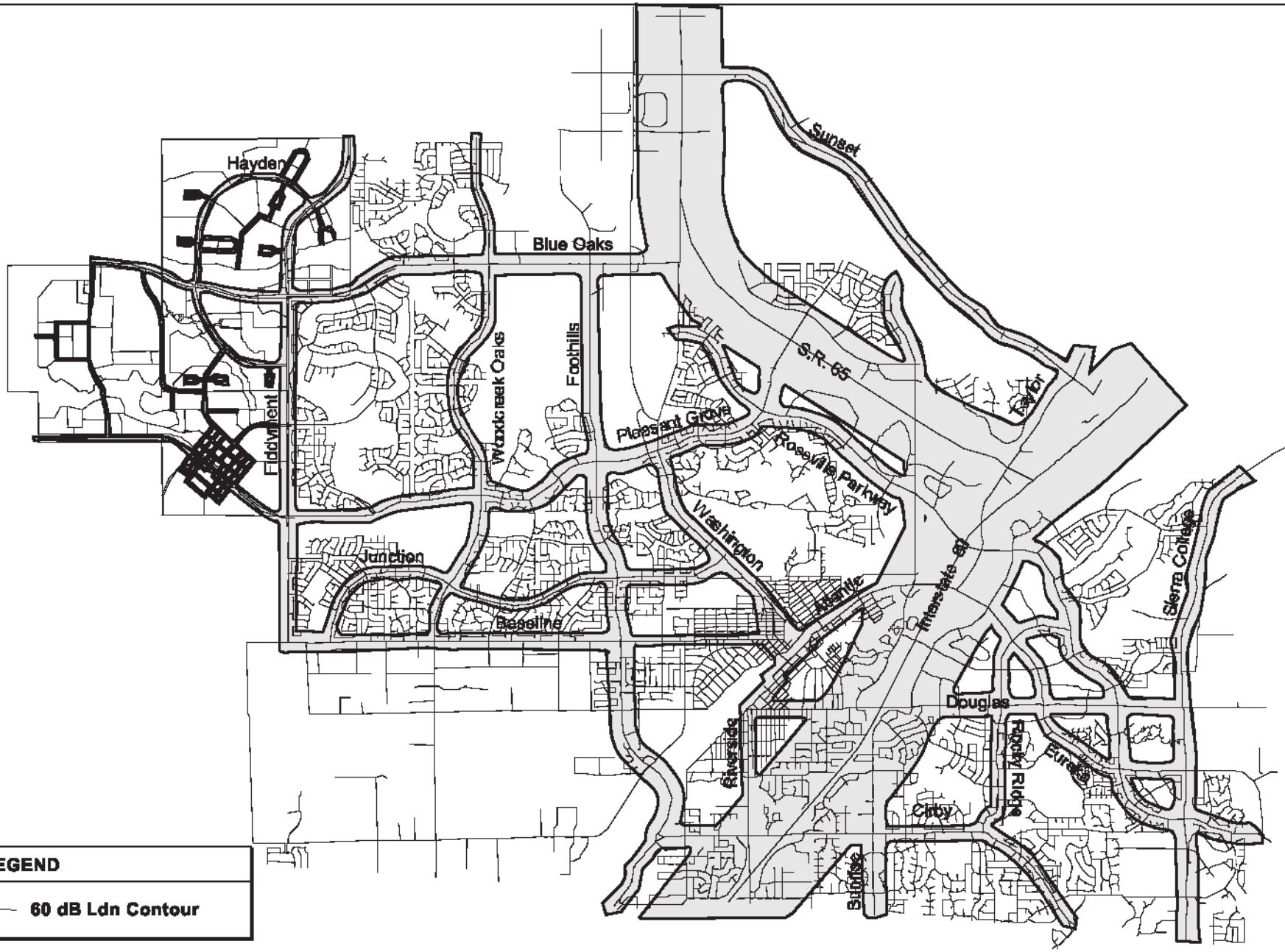


FIGURE **4.5-3**

Traffic Noise Level Contours Including West Roseville Specific Plan

Not to Scale

10659-00

Source: EIP Associates, 2003

City of Roseville

Table 4.5-6 Traffic Noise Levels and Distances to Contours 2020 Without West Roseville Specific Plan

Roadway	From	To	L_{dn} at 75 ft. (dB)	Distance to Noise Level Contours (ft.)	
				60 dB	65 dB
S.R. 65	S. of Pleasant Grove		80	1693	786
S.R. 65	Pleasant Grove	Blue Oaks	80	1683	781
S.R. 65	Blue Oaks	Sunset	81	1785	829
Roseville Parkway	S. of Pleasant Grove		72	466	216
Roseville Parkway	Pleasant Grove	Washington	69	303	141
Roseville Parkway	Washington	Foothills	70	349	162
Roseville Parkway	East of I-80		71	437	203
Sunset	East SR-65		69	298	138
Foothills	Baseline	Junction	71	435	202
Foothills	Junction	Pleasant Grove	71	431	200
Foothills	Pleasant Grove	Blue Oaks	70	349	162
Foothills	N. of Cirby		73	553	257
Woodcreek	Baseline	Junction	65	163	76
Woodcreek	Junction	Pleasant Grove	70	330	153
Woodcreek	Pleasant Grove	Blue Oaks	68	250	116
Woodcreek	N. of Blue Oaks		65	166	77
Fiddyment	S. of Baseline		69	280	130
Fiddyment	Baseline	Pleasant Grove	70	340	158
Fiddyment	Pleasant Grove	Blue Oaks	66	193	90
Fiddyment	Blue Oaks	Hayden	63	125	58
Fiddyment	N. of Hayden		63	125	58
Baseline	W. of Watt		70	325	151
Baseline	Watt	Fiddyment	72	439	204
Baseline	Fiddyment	Junction	71	401	186
Baseline	Junction	Woodcreek	69	284	132
Baseline	Woodcreek	Foothills	69	317	147
Baseline	Foothills	Washington	61	88	41
Junction	Baseline	Woodcreek	68	252	117
Junction	Woodcreek	Foothills	67	221	103
Junction	Foothills	Washington	69	288	134
Pleasant Grove	West Side	Fiddyment	0	0	0
Pleasant Grove	Fiddyment	Woodcreek	69	283	131
Pleasant Grove	Woodcreek	Foothills	71	423	196
Pleasant Grove	Foothills	Washington	72	443	206
Pleasant Grove	Washington	Roseville Parkway	71	416	193
Pleasant Grove	Roseville Parkway	S.R. 65	72	503	234
Blue Oaks	West Side	Hayden	0	0	0
Blue Oaks	Hayden	Fiddyment	0	0	0
Blue Oaks	E. of Fiddyment		65	171	79
Blue Oaks	W. of Woodcreek		68	266	124
Blue Oaks	Woodcreek	Foothills	70	371	172
Blue Oaks	Foothills	S.R. 65	72	475	221
Blue Oaks	S.R. 65	Sunset	70	364	169
West Side	Baseline	Pleasant Grove	0	0	0

Table 4.5-6 Traffic Noise Levels and Distances to Contours 2020 Without West Roseville Specific Plan

Roadway	From	To	L_{dn} at 75 ft. (dB)	Distance to Noise Level Contours (ft.)	
				60 dB	65 dB
West Side	Pleasant Grove	Blue Oaks	0	0	0
Hayden	N. of Blue Oaks		0	0	0
Hayden	S. of Blue Oaks		0	0	0
I-80	W. of Auburn		83	2518	1169
I-80	Cirby	Douglas	83	2402	1115
I-80	Douglas	Lead Hill	82	2333	1083
I-80	Lead Hill	Roseville Parkway	83	2526	1172
I-80	E. of Roseville Parkway		81	1893	879
Riverside	N. of I-80		69	304	141
Auburn	S. of I-80		70	359	167
Washington	W. of Atlantic		70	328	152
Atlantic	W. of I-80		70	351	163
Galleria Blvd	Lead Hill	S.R. 65	71	426	198
Stanford Ranch	North of S.R. 65		71	395	183
Taylor Road	North of I-80		72	460	213
Sunrise	S. of Cirby		72	478	222
Sunrise	N. of Cirby		72	475	221
North Sunrise	Douglas	Eureka	71	413	192
Cirby	W. of Sunrise		72	447	208
Cirby	E. of Sunrise		70	325	151
Douglas	W. of I-80		70	328	152
Douglas	I-80	Rocky Ridge	72	489	227
Douglas	East of Rocky Ridge		72	490	228
Eureka	I-80 to Rocky Ridge		72	459	213
Eureka	East of Rocky Ridge		70	333	155
Sierra College	North of Douglas		70	344	159
Sierra College	South of Douglas		72	446	207
Rocky Ridge	Cirby	Douglas	69	320	148
Rocky Ridge	Douglas	Roseville Parkway	70	348	161
Roseville Road	South of Cirby		70	338	157
Vernon	North of Douglas		68	245	114

SOURCE: Bollard & Brennan, Inc. 2003.

4.5.3 Regulatory Setting

Federal

There are no federal laws, regulations, or requirements that pertain to regulating noise on a local level.

State

State of California

Title 24 of the California Code of Regulations establishes standards governing interior noise levels that apply to all new multifamily residential units (hotels, motels, apartments, condominiums, and other attached dwellings) in California. These standards require that acoustical studies be performed prior to construction at residential building locations where the existing exterior L_{dn} exceeds 60 dBA. Such acoustical studies are required to establish mitigation measures that will limit maximum L_{dn} noise levels to 45 dBA in any habitable room.

Local

City of Roseville General Plan Noise Element

The City of Roseville General Plan establishes acceptable noise level criteria for both transportation and non-transportation noise sources. For transportation noise sources, such as roadway noise, the City of Roseville General Plan Noise Element establishes an "Acceptable" exterior noise level standard for residential uses of 60 dB L_{dn}, which is applied in the outdoor activity areas. A "Conditionally Acceptable" exterior noise level standard of 65 dB L_{dn} is applied only after careful study and inclusion of protective measures as needed for intended use. The City of Roseville also establishes an interior noise level criterion of 45 dB L_{dn} for residential uses.

For noise due to non-transportation noise sources, or stationary noise sources, such as those associated with commercial land uses, the City of Roseville establishes hourly noise level performance criteria. These hourly criteria are applied at the affected noise-sensitive use property line. Table 4.5-7 shows the hourly noise level performance criteria.

Table 4.5-7 Performance Standards for Nontransportation Noise Sources[1]

Noise Level Descriptor	Daytime (7 a.m.–10 p.m.)	Nighttime (10 p.m.–7 a.m.)
Hourly Average (L_{eq})	50 dB	45 dB
Maximum Level (L_{max})	70 dB	65 dB

NOTES:
Each of the noise levels specified above should be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.
1. Table IX-3 of the City of Roseville General Plan Noise Element

City of Roseville Noise Ordinance

The City of Roseville has a Municipal Code that establishes noise level criteria for different land uses and activities, and regulates noise produced by stationary sources, construction equipment, amplification and other sources. Specific sections of the Noise Ordinance that would reduce impacts associated with noise in the SOI Amendment are reproduced below.

9.24.030 Exemptions.

Noise or Sound emanating from the following sources and activities are exempt from provisions of this title:

D. The normal operation of public and private schools typically consisting of classes and other school-sponsored activities.

F. Emergencies involving the execution of the duties of duly authorized government personnel and others providing emergency response to the general public, including but not limited to sworn peace officers, emergency personnel, utility personnel, and the operation of emergency response vehicles and equipment.

G. Private construction (e.g., construction, alteration or repair activities) between the hours of seven a.m. and seven p.m. Monday through Friday, and between the hours of eight a.m. and eight p.m. Saturday and Sunday. Provided, however, that all construction equipment shall be fitted with factory installed muffling devices and that all construction equipment shall be maintained in good working order.

H. Governmental operations necessary to provide essential services including but not limited to treatment plants, electric substations, fire stations, police stations, and other civic buildings.

9.24.100 Sound Limits for Sensitive Receptors.

A. It is unlawful for any person at any location to create any sound, or to allow the creation of any sound, on property owned, leased, occupied or otherwise controlled by such person which causes the exterior sound level when measured at the property line of any affected other sensitive receptor to exceed the ambient sound level by three (3) dBA or exceed the sound level standards as set forth in Table 4.5-6 by three (3) dBA, which ever is greater.

   A. Each of the sound level standards specified in Table 4.5-7 shall be reduced by five (5) dB for simple tone noises, consisting of speech and music. However, in no case shall the sound level standard be lower than the ambient sound level plus three (3) dB.

   B. If the intruding sound source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient sound level can be measured, the sound level measured while the source is in operation shall be compared directly to the sound level standards of Table 4.5-7.

B. Notwithstanding paragraph A above, it is unlawful for any person at any location to create any sound, or to allow the creation of any sound, on industrial property owned, leased, occupied or otherwise controlled by such person where an industrial land use shares a common property line or is separated by a roadway which causes the exterior sound level when measured at the property line of any affected single or multiple-family residence, school, hospital, church, rest home, cemetery, public library or other sensitive receptor to exceed the ambient sound level by seven (7) dBA or exceed the sound level standards as set forth in Table 4.5-7 by

seven (7) dBA, which ever is greater. This provision solely applies to properties with an Industrial Zoning designation, and supercedes the provisions of Section 9.24.040.A.

9.24.050 Amplified Sound Limits for Residential and Sensitive Receptors.

In addition to the sound level standards established in Table 4.5-7, it is unlawful for any person at any location to produce amplified music or sound which causes the exterior sound level when measured at the property line of any affected single or multiple-family residence, school, hospital, church, rest home, cemetery, public library or other sensitive receptor to exceed the sound level standards as set forth in Table 4.5-8.

Table 4.5-8 Sound Level Standards (for Amplified Sound)

Sound Level Descriptor	Daytime (7 A.M.–10 P.M.)	Nighttime (10 P.M.–7 a.m.)
L_{eq} A weighting dBA	50	45
L_{eq} C weighting dBC	75	70

NOTES:
One-Third (1/3) octave band Ten (10) dB increase in any one-third (1/3) octave band

West Roseville Specific Plan Measures

The WRSP Design Guidelines require soundwalls and landscape setbacks in a number of locations. These features, detailed below, would reduce noise levels in residential areas adjacent to roadways (see Impact 4.5-9). However, acoustical studies would be needed once more detailed design information is available in order to determine whether additional noise attenuation measures would be required to meet City standards (see mitigation measures below).

The WRSP Design Guidelines state a minimum masonry soundwall height of six feet will be provided along low- and medium-density residential along the following arterial streets:

- Blue Oaks Boulevard
- Fiddyment Road
- West Side Drive
- Pleasant Grove Boulevard (with the exception of through the Village Center)

In addition, the Design Guidelines include a minimum six-foot-high solid wood fence along Hayden Parkway. The Design Guidelines also include wood fencing between schools and residences and parks and residences where the back or side yard abuts either school or park property. A fence will be provided around the perimeter of the PGWWTP and City-owned property to the north of the PGWWTP.

The WRSP Design Guidelines also call for 35- to 50-foot landscape setback along major roadways.

4.5.4 Impacts and Mitigation Measures

Methods of Analysis

When evaluating traffic-related noise impacts, analysis depends on the same assumptions made in Section 4.3, Transportation, because traffic volumes associated with the SOI Amendment Area as a whole cannot be determined by simply adding the new volumes attributed to the WRSP and Remainder Area components since the traffic model utilized redistributes trips based on changes to regional land use. Changes in jobs and housing may change commuting patterns, and redistribution of trips causes changes in traffic volumes throughout the model network, including both increases and decreases in volume on roadways. Therefore, for this section, the noise impacts for the SOI Amendment Area as a whole are analyzed independently of the analyses for the WRSP and Remainder Area.

The baseline for the analysis in this section is existing conditions, in combination with approved development in the vicinity of the SOI Amendment Area. Traffic noise impacts are based on the traffic analysis, which assumes buildout of approved development within the City of Roseville and 2020 conditions outside of the City. Increases in traffic noise relative to existing conditions are discussed in Appendix K. Cumulative impacts on noise are addressed in Chapter 5, CEQA Considerations.

SOI Amendment Area activities are not expected to result in any significant vibrations impacts within the SOI Amendment Area.

Traffic Noise

Traffic noise levels were determined using the Federal Highway Administration (FHWA RD-77-108) Traffic Noise Prediction Model. The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. Inputs to the model were based upon traffic data provided by the traffic consultant, posted speeds, standard truck percentage data, and traffic split information. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To predict traffic noise levels in terms of L_{dn}, it is necessary to adjust the input volume to account for the day/night distribution of traffic.

Traffic volumes for future conditions and scenarios are contained in Section 4.3 (Transportation). A complete listing of the FHWA Model input data for future conditions are provided in Appendix J.

Stationary Sources

Noise levels associated with industrial, public service and commercial facilities were determined using noise level data collected for similar facilities and standard noise modeling techniques.

The noise level criteria shown in Table 4.5-7 are used to determine land use compatibility with residential uses. At the specific plan level, detailed site and grading plans associated with these types of noise sources have not yet been developed. As a result, specific noise impacts associated with these sources cannot be identified at this time. Instead, the potential for these sources to generate excessive or annoying noise levels is evaluated, and measures are identified that could ensure that City standards are achieved. Proposed land uses that could result in noise levels in excess of Table 4.5-8 include community commercial, industrial, sports facilities, schools and parks. In additions, the City of Roseville Capital Improvements Program EIR identified off-site construction projects which may produce noise levels which would exceed City thresholds. The increase in noise levels would be short-term in nature and would not result, in-and of themselves, a permanent increase in roadway noise.

Construction Noise

Project development would require the use of heavy equipment for site grading and excavation, installation of utilities, paving, and building fabrication. Development activities would also involve the use of smaller power tools, generators, and other sources of noise. During each stage of development there would be a different mix of equipment operating and noise levels would vary based on the amount of equipment in operation and the location of the activity.

The U.S. EPA has compiled data regarding the noise generating characteristics of specific types of construction equipment and typical construction activities. These data are presented in Table 4.5-9 and Table 4.5-10 for a reference distance of 50 feet. These noise levels would diminish rapidly with distance from a construction site at a rate of approximately 6 dBA per doubling of distance. For example, a noise level of 84 dBA measured at 50 feet from the noise source to the receptor would reduce to 78 dBA at 100 feet from the source to the receptor, and reduced by another 6 dBA to 72 dBA at 200 feet from the source to the receptor.

Table 4.5-9 Noise Ranges of Typical Construction Equipment

Construction Equipment	Noise Levels in dBA Leq at 50 Feet[1]
Front Loader	73-86
Trucks	82-95
Cranes (moveable)	75-88
Cranes (derrick)	86-89
Vibrator	68-92
Saws	72-82
Pneumatic Impact Equipment	83-88
Jackhammers	81-98
Pumps	68-72
Generators	71-83
Compressors	75-87
Concrete Mixers	75-88
Concrete Pumps	81-85
Back Hoe	73-95
Pile Driving	95-107
Tractor	77-98
Scraper/Grader	80-93
Paver	85-88

NOTES:
1. Machinery equipped with noise control devices or other nosie-reducing design features does not generate the same level of noise emissions as that shown in this table.
Source: U.S. EPA 1971

Table 4.5-10 Typical Outdoor Construction Noise Levels

Construction Phase	Noise Levels at 50 feet (dBA Leq)	Noise Levels at 50 Feet with Mufflers (dBA Leq)
Ground Clearing	84	82
Excavation, Grading	89	86
Foundations	78	77
Structural	85	83
Finishing	89	86

SOURCE: U.S. EPA 1971

Standards of Significance

Noise problems are typically composed of three basic elements: the noise source, a transmission path, and a receiver. The appropriate acoustical treatment for a given project should consider the nature of the noise source and the sensitivity of the receiver. The problem should be defined in terms of appropriate criteria (L_{dn}, L_{eq}, or L_{max}), the location of the sensitive receiver (inside or outside), and when the problem occurs (daytime or nighttime). Noise control techniques should then be selected to provide an acceptable noise environment for the receiving property while remaining consistent with local aesthetic standards and practical structural and economic limits. Fundamental noise control options are discussed in more detail in Appendix J.

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area could do any of the following:

- Expose sensitive receptors to noise levels that exceed the City of Roseville General Plan Noise Element criteria
- Violate the City of Roseville Noise Ordinance
- Cause a substantial increase (greater than 3dB) adjacent to existing or planned residential uses or other sensitive receptors
- Contribute to increased sound levels where noise levels exceed 60 dBA (adjacent to existing or planned sensitive receptors)
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project
- Expose persons to, or generation of, excessive ground-borne vibration or ground-borne noise levels

Impacts

IMPACT 4.5-1:	SHORT-TERM NOISE GENERATED BY CONSTRUCTION ACTIVITY.		
Applicable Policies and Regulations:	City of Roseville Noise Ordinance Section 9.24.030		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant	Less Than Significant
Mitigation Measures:	MM 4.5-1 (Construction Noise Reduction) (WRSP) MM 4.5-2 (Construction Noise Policies) (Remainder Area)	MM 4.5-1 (Construction Noise Reduction)	MM 4.5-2 (Construction Noise Policies)
Significance after Mitigation:	N/A	Less Than Significant	Less Than Significant

A separate analysis of the SOI Amendment Area, which consists of the WRSP Area and the Remainder Area, is not provided because construction of both areas will never occur simultaneously.

West Roseville Specific Plan

Construction activities would affect residences to the east of the WRSP Area, particularly at the adjacent Del Webb and North Roseville Specific Plan areas along Fiddyment Road, as well as those residences to the south of Baseline Road. In addition, because construction would occur in phases, some on-site residential uses built during the early phases of the development would be exposed to construction

activity noise levels during the latter phases of development. Off-site infrastructure improvements along Blue Oaks Boulevard and Pleasant Grove Boulevard would also expose residents in those areas to construction noise.

Activities involved in construction would generate typical noise levels indicated in Table 4.5-9, ranging from 84 to 89 dB at a distance of 50 feet. In addition, noise levels due to drilling for wells create noise levels of approximately 90 dB at a distance of 50 feet. No pile driving or other unusual construction practices are anticipated that would result in substantial ground-borne vibration or noise. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Noise would also be generated during the construction phase by increased truck traffic on area roadways, particularly trucks transporting heavy materials and equipment to and from construction sites. This noise increase would be of short duration, and would likely occur primarily during daytime hours.

The Roseville Noise Ordinance (Section 9.24.030) restricts construction activity to the hours of seven a.m. to seven p.m. Monday through Friday, and eight a.m. to eight p.m. Saturday and Sunday, and requires that appropriate sound muffling devices be installed on construction equipment. These measures ensure that construction noise was limited to the daytime and that equipment noise would be minimized. Compliance with the City's Noise Ordinance would ensure that this impact is **less than significant.** To further reduce noise levels near residences, MM 4.5-1 recommends that equipment warm up areas, water tanks, and equipment storage areas be located in an area as far away from existing residences as is feasible. In addition, as required by MM 4.5-2, noise levels associated with water well drilling shall be reduced by hanging flexible sound control curtains around the drilling apparatus, and the drill rig.

Remainder Area

If the Remainder Area developed at levels similar to those proposed in the WRSP, the effects would be similar, but would affect different sensitive receptors, including existing residents along Phillip Road and the new occupants of the WRSP area. As indicated in Table 4.5-10, construction noise levels would range from 84 to 89 dB at a distance of 50 feet. Noise would also be generated during the construction phase by increased truck traffic on area roadways. Compliance with the City's Noise Ordinance, which limits the hours of construction and requires sound mufflers, would ensure that impacts from construction noise would be **less than significant.** MM 4.5-2 would further reduce noise levels by placing loud equipment away from residences and blocking noise from well drilling equipment.

IMPACT 4.5-2:	COMMERCIAL NOISE SOURCES.		
Applicable Policies and Regulations:	Table IX-3 of the City of Roseville General Plan Noise Element		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant	Significant
Mitigation Measures:	MM 4.5-3 (Commercial noise control) (WRSP) MM 4.5-4 (Commercial noise policies) (Remainder Area)	MM 4.5-3 (Commercial noise control)	MM 4.5-4 (Commercial noise policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant	Less Than Significant

SOI Amendment

There are a variety of stationary noise sources associated with future development within the SOI Amendment Area that could create noise levels in excess of the City of Roseville General Plan noise standards, or result in annoyance at existing and future noise-sensitive developments within the WRSP area. Such uses/noise sources include, but are not limited to, commercial loading docks associated with such uses as grocery stores, on-site truck circulation on commercial facilities, rooftop heating and ventilation equipment, and trash pickup. These activities could generate noise in excess of City standards at nearby residences, which may result in a potentially significant impact.

To reduce impacts associated with commercial noise activities, MM 4.5-3 for the WRSP and MM 4.5-4 for the Remainder Area require specific design considerations along with an acoustical analysis as well as provisions for locating commercial uses more than 150 feet from residences. These measures would reduce commercial noise impacts to a **less-than-significant** level.

West Roseville Specific Plan

Within the WRSP area, commercial uses are proposed adjacent to residential areas at the intersections of Fiddyment Road and Blue Oaks Boulevard, Fiddyment Road and Hayden Parkway (north of Blue Oaks Boulevard), Blue Oaks Boulevard and Hayden Parkway, along West Side Drive, and within the Village Center. Six-foot masonry walls are proposed between these commercial and residential areas, except between commercial uses and the medium and low density residential at the Fiddyment Road and Hayden Parkway Intersection (see Figure M-03 in the WRSP Design Guidelines). However, according to the WRSP Design Guidelines, all service and delivery areas will be integrated into the design of the buildings and would include masonry walls or landscaping.

No site designs are proposed for commercial designations at this time. Therefore, noise levels cannot be estimated, and the effectiveness of the 6-foot masonry walls cannot be determined. Nonetheless, as discussed under Methods of Analysis, above, there is evidence that activities in commercial areas could exceed City standards (shown in Table 4.5-7) at adjacent residential areas, resulting in a potentially significant impact. Noise sources located more than 150 feet from residences would not be expected to exceed City standards. Within 150 feet of residences, orientation and shielding (e.g., berms, soundwalls) could be used to reduce noise levels at nearby residences. If the design measures required in MM 4.5-3 are included in the commercial developments, then noise levels associated with commercial uses are expected to meet the acceptable noise level criteria. These measures include higher soundwalls, restriction of delivery hours, and use of quiet HVAC equipment. MM 4.5-3 also requires that an acoustic analysis demonstrate that the measures selected for each commercial development within 150 feet of residences would ensure that City noise standards are met. Therefore, this is considered a **less-than-significant** impact.

Remainder Area

The location of commercial uses within the Remainder Area has not been determined, but similar to the WRSP, commercial and residential uses could be located in proximity to each other. Therefore, noise levels from commercial facilities could exceed City standards at some residences resulting in a potentially significant impact. MM 4.5-4 requires that Specific Plans and/or other development proposals include provisions for commercial uses located near residences to ensure that the City's standards are met. With implementation of MM 4.5-4 for the Remainder Area, commercial noise impacts would be **less than significant.**

IMPACT 4.5-3:	INDUSTRIAL NOISE.		
Applicable Policies and Regulations:	Table IX-3 of the City of Roseville General Plan Noise Element		
	SOI	WRSP	Remainder Area
Significance with Policies and Regulations:	Significant	Significant	No impact
Mitigation Measures:	MM 4.5-5 (Industrial facilities noise controls)	MM 4.5-5 (Industrial facilities noise controls)	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant	No impact

SOI Amendment

Development within the SOI Amendment Area could include development of industrial uses such as heavy equipment rental and storage, light industrial operations, recycling, scrap and dismantling, and

other noise-generating uses (see Table 4.1-1 in Chapter 4.1, Land Use and Agricultural Resources, for a full list). In addition, there are a variety of stationary noise sources associated with these industrial operations that could generate high noise levels, such as loading docks, on-site truck circulation, rooftop heating and ventilation equipment, heavy equipment, and processing equipment. Industrial operations often extend over 24-hour periods, generating noise in the nighttime hours, when residents are particularly sensitive to noise. This would be a significant impact.

Compliance with MM 4.5-5, which requires that any industrial or light industrial proposal demonstrate that the City's noise standards would be met through a combination of setbacks, barriers, facilities orientation, and other noise control measures, would ensure noise levels at sensitive receptors meet City standards. Therefore, within the SOI Amendment Area this impact would be reduced to a **less-than-significant** level.

West Roseville Specific Plan

The WRSP designates industrial and light industrial land uses to the south and west of the PGWWTP. The specific industrial operations that would occur in the WRSP are not known at this time, but could include the types of activities described above.

Most of the residential uses in the WRSP would be separated from industrial operations by open space south of the PGWWTP, West Side Drive to the west, and by the Citywide park, high school, and PGWWTP to the north and east. The park and high school would be located within 1,000 feet of the PGWWTP and proposed light industrial area south of the PGWWTP. As discussed in the EIR prepared for the new wastewater treatment plant (Roseville Regional Wastewater Treatment Service Area Master Plan DEIR) noise generation would be limited to operation of the Odor Control fans. To ensure noise impacts associated with these fans would be less than significant Mitigation Measure 9-2 requires that the centrifugal fans be installed with acoustical treatment.[91] This would ensure noise associated with the PGWWTP would not affect users in the adjacent park or high school. It is anticipated that future development of any light industrial uses south of the PGWWTP would comply with the City's non-transportation source noise level criteria and would not adversely affect the proposed high school. In addition, the WRSP Design Guidelines include a 25-foot landscaped buffer around the perimeter of the PGWWTP, as well as masonry soundwalls that would be constructed around the PGWWTP and City-owned property to the north. These features, in addition to West Side Drive would buffer residential uses to the south and west. There are residential uses proposed in the western portion of the WRSP area that

[91] City of Roseville, Roseville Regional Wastewater Treatment Service Area Master Plan DEIR, May 1996. Page 9-7

would be in proximity to the industrial uses (see Figure 2-3 [West Roseville Specific Plan Land Use Plan] in Chapter 2 [Project Description]). These residential areas are separated from the industrial and light industrial areas by West Side Drive, which is proposed to be approximately 150 feet wide including a 35-foot landscape corridor and a 14-foot landscaped median. Nonetheless, depending on the types of industrial operations that occurred within the WRSP area, these residential areas could be exposed to noise levels that exceed City standards. This would be a potentially significant impact.

MM 4.5-5 requires that any industrial or light industrial proposal demonstrate that the City's noise standards would be met through a combination of setbacks, barriers, facilities orientation and other noise control measures. Noise levels associated with industrial facilities generally are a result of processing equipment and air handling equipment. These facilities can reduce noise levels through implementation of noise control techniques such as silencers on exhaust stacks and ventilation openings, enclosures around noisy equipment, and orienting noisy equipment or processing facilities away from noise-sensitive receivers. These types of noise control features can be incorporated into the future industrial facilities to reduce noise levels consistent with the City of Roseville Noise Element criteria. Given the size of the industrial area, and the distance between industrial uses and the closest sensitive receptor (a minimum of 150 feet, the width of West Side Drive), such measures can be used to feasibly attain the noise standards. Therefore, the noise levels would be **less than significant**.

Remainder Area

The Remainder Area is not assumed to have any light industrial or industrial uses at this time. Therefore, no impact has been identified. However, if industrial uses are proposed in the future, they would be subject to separate environmental review, as part of the City's specific plan process.

IMPACT 4.5-4:	NOISE FROM SCHOOL RELATED ACTIVITIES.		
Applicable Policies and Regulations:	City of Roseville Municipal Code Section 9.24.030 (D)		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant	Less Than Significant

School-Related Noise

SOI Amendment

Within the SOI Amendment Area there are a number of new schools proposed. These include a high school, middle school, and four elementary schools planned in the WRSP, as well as elementary and middle schools in the Remainder Area. Schools can generate noise from outdoor play areas: specifically, outdoor football, basketball, baseball, and soccer fields. These facilities could exceed City noise standards at nearby residences, which would be a potentially significant impact. However, as per section 9.24.030 (D) of the City of Roseville Municipal Code, the normal operation of public and private schools typically consisting of classes and other school-sponsored activities are exempt from the noise level thresholds outlined in Table IV-3 of the City of Roseville General Plan Noise Element. Therefore, impacts associated with school related noise would be **less than significant**.

West Roseville Specific Plan

The WRSP includes one 53-acre high school site west of Fiddyment Road and east of the proposed sports complex near Hayden Parkway. One 20-acre middle school site is designated north of Pleasant Grove Boulevard, northwest of the Village Center. Four elementary school sites are designated in the WRSP in residential areas-two sites are proposed north of Blue Oaks Boulevard and two are proposed south of Blue Oaks Boulevard.

Noise sources associated with school sites are generally limited to outdoor sports and play areas. Other noise sources could include heating and ventilation equipment and parking lot noise. There is a variety of noise sources associated with large outdoor play areas such as a football field, soccer fields, or baseball diamonds. These noise sources generally include crowd and player noise, and public address system noise. The following provides a description of noise sources and noise levels for varying facilities.

High School Football Stadium Noise Levels

The noise generation of the stadium would depend mainly on the crowd size, the interest level in the sporting event, and on the design of the public address system. Typical noise levels associated with these types of facilities are 60 dB L_{eq} and 70–75 dB L_{max} at a distance of 500 feet, with a crowd size of approximately 5,000 people. However, as per section 9.24.030 (D) of the City of Roseville Municipal Code, the normal operation of public and private schools typically consisting of classes and other school-sponsored activities are exempt from the noise level thresholds outlined in Table IV-3 of the City of Roseville General Plan Noise Element. Therefore, impacts associated with school-related noise would be **less than significant**.

Other Outdoor School Play Areas Noise Levels

The noise sources associated with these activities include crowd noise and yelling from participants. Bollard & Brennan, Inc. has conducted noise level measurements of soccer and softball games where the number of individuals was estimated to range from 50 to 100 people. Noise level measurements indicated that noise levels associated with 100 people shouting at a distance of approximately 100 feet from the center of the field was 60 dB L_{eq}, and 70 dB L_{max}. However, as per section 9.24.030 (D) of the City of Roseville Municipal Code, the normal operation of public and private schools typically consisting of classes and other school-sponsored activities are exempt from the noise level thresholds outlined in Table IV-3 of the City of Roseville General Plan Noise Element. Therefore, impacts associated with school related noise would be **less than significant**.

Remainder Area

No high school is anticipated to be developed in the Remainder Area, because the proposed high school in the WRSP area would be adequate to serve the entire SOI Amendment Area. Elementary schools and a middle school would likely be needed in the Remainder Area, and, as discussed above, noise on playgrounds could exceed City noise standards. However, as per section 9.24.030 (D) of the City of Roseville Municipal Code, the normal operation of public and private schools typically consisting of classes and other school-sponsored activities are exempt from the noise level thresholds outlined in Table IV-3 of the City of Roseville General Plan Noise Element. Therefore, impacts associated with school related noise would be **less than significant**.

IMPACT 4.5-5:	CITYWIDE PARK NOISE.		
Applicable Policies and Regulations:	Table IX-3 of the City of Roseville General Plan Noise Element		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant	Significant
Mitigation Measures:	MM 4.5-6 (Attenuate park noise) (WRSP) MM 4.5-7 (Park noise policies) (Remainder Area)	MM 4.5-6 (Attenuate park noise)	MM 4.5-7 (Park noise policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant	Less Than Significant

Park Noise

SOI Amendment

Within the SOI Amendment Area two large Citywide parks are planned in the WRSP area. The types of parks that would be built in the Remainder Area are not known at this time. Noise associated with park uses includes noise from park activities such as baseball, softball, and soccer events as well as from the park bandstand. Noise levels could range from between 55 dB L_{eq} and 70 dB L_{max} at distances of approximately 500 feet that would be a potentially significant impact. Because residential uses within the WRSP area could be as close as 200 feet, MM 4.5-6 and MM 4.5-7 would be required to shield noise through berms or barriers. Compliance with this measure would reduce impacts within the SOI Amendment Area to a **less-than-significant** level.

West Roseville Specific Plan

Citywide Park at Blue Oaks Boulevard and Phillip Road

A Citywide park (regional sports complex park) with active recreational facilities is proposed for the area east of Phillip Road (see Figure 2-5 [Regional Sports Park] in Chapter 2 [Project Description]). The park is proposed to include a soccer complex at the north end of the park site, and several additional facilities including baseball and softball diamonds along the south portion of the site. No noise-sensitive land uses are located to the west, north, or south of the park site. However, some high-density residential uses are located to the east of the site. Noise levels associated with a soccer complex are expected to be similar to those associated with a football stadium of approximately 4,000 to 5,000 people. Noise levels could range between 55 dB L_{eq} and 70 dB L_{max} at distances of approximately 500 feet. Based upon the current project design, it is expected that the nearest residential uses could be as close as 200 feet from the soccer complex. Therefore, predicted noise levels at the nearest residence are expected to be approximately 60 dB L_{eq} and 75 dB L_{max}, which would exceed City standards. This would be a potentially significant impact.

As a means of reducing noise levels associated with the proposed soccer complex, MM 4.5-6 requires that the soccer fields be enclosed, if feasible, or shielded through the use of berms or barriers. A minimum 8 dB to 10 dB reduction in noise can be achieved through the site design or through the use of walls and berms. This type of reduction of noise levels is expected to result in compliance with the City of Roseville daytime noise level standards. However, it is expected that the nighttime noise level criteria would be exceeded. Therefore, MM 4.5-6 restricts use to 7:00 A.M. to 10:00 P.M. and would reduce this impact to a **less than significant** level.

Fiddyment Park

Fiddyment Park is proposed adjacent to and west of Fiddyment Road and south of Blue Oaks Boulevard. A preliminary design has been completed for the park (see Figure 2-6 [Fiddyment Park] in Chapter 2 [Project Description]). Festival grounds, the only major noise source associated with the park has been the proposed Garden Bandstand. The outdoor activities that the venue could host would include small musical groups and speaking events. The seating capacity would not exceed 300, and would be festival style. The stage would face to the southeast, and would be depressed approximately 20 feet below grade. The presence of people would produce some noise, depending upon the activity involved, but the most significant impacts would result from use of amplifiers for music or public speaking. Noise levels produced by amplified sound systems would be variable depending upon the amplifier power and the settings used. For this analysis, it is assumed that the amphitheater will be fairly small in size (approximately seating of 200 to 300 people).

In settings where speech intelligibility is extremely important, voice sound levels are required to be in the range of 60 dB to 65 dB. However, maximum noise levels from speech can be up to 7 dB higher than the average of 60 dB to 65 dB. Based upon the assumed small design of the amphitheater, it is expected that sound power levels from the stage would be required to be approximately 100 dB L_{eq} at the stage for speaking engagements. Therefore, predicted noise levels at the nearest property line to the northeast where the nearest proposed residences would be located (600 feet from the stage) is 45 dB L_{eq}, and 52 dB L_{max}. This assumes that overall voice efforts or amplified voice is at the lowest volume required to provide adequate speech intelligibility.

Amplified music or activities could have inherently louder noise levels at the stage. Noise level data for small outdoor performance venues generally result in maximum noise levels due to performances ranging between 80 dB and 90 dBA at a typical sound booth (100 feet from the stage). Based upon this analysis, typical maximum noise levels at the nearest property line to the northeast (600 feet from the stage) are predicted to be 68 dB L_{eq}, and 75 dB L_{max}. If maximum noise levels do not exceed 75 dB L_{max} at a distance of 100 feet from the stage, it can be expected that noise levels will comply with the daytime exterior noise level criteria of 50 dB L_{eq}, and 70 dB L_{max}.

A 8 dB to 10 dB of noise attenuation can be achieved through shielding of the stage and amplified system with the use of barriers or berm, as required by MM 4.5-7. Events that cannot achieve the City standards would be prohibited. With implementation of MM 4.5-7, park noise would have a **less-than-significant** impact, because noise levels would not exceed City standards at nearby residences.

Remainder Area

Development of the Remainder Area would likely include parks, but the type, size and location of those parks is not known at this time. If a Citywide park were developed with uses similar to those planned for the WRSP area, then nearby residents of the Remainder Area and/or WRSP area could be subjected to noise levels that exceed City standards. This would be a potentially significant impact. MM 4.5-9 would ensure that noise levels are acceptable in Remainder Area parks by requiring shielding, barriers, or similar methods to achieve City standards. With this mitigation, this impact would be reduced to a **less-than-significant** level.

IMPACT 4.5-6:	PLEASANT GROVE WASTEWATER TREATMENT PLANT NOISE.		
Applicable Policies and Regulations:	City of Roseville Noise Ordinance Section 9.24.030 (D)		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant	Less Than Significant
Mitigation Measures:	None required	None required	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant	Less Than Significant

SOI Amendment/WRSP/Remainder Area

Residential development is restricted within a 1,000-foot non-residential buffer surrounding the east, west and southern boundaries of the PGWWTP. This buffer was established in a separate EIR prepared specifically for the PGWWTP. A portion of the proposed high school site would lie within the 1,000-foot buffer (athletic facilities), however all school buildings would lie outside of the buffer. A 70-acre parcel owned by the City buffers the northern boundary of the plant. The treatment plant includes mechanical equipment such as pumps, clarifiers, and digesters. Measured noise levels associated with each of those pieces of equipment ranged between 60 dBA and 62 dBA at a distance of 20 feet, so noise levels would be below 50 dBA at 1,000 feet (assuming a 3dB reduction for every doubling of distance). In addition, the WRSP Design Guidelines include a 6-foot masonry soundwall along the western and southern boundaries of the PGWWTP. Because residential uses and high school buildings would be located outside of the 1,000-foot buffer; equipment noise levels are not anticipated to be audible within the WRSP or Remainder Area. In addition, section 9.24.030 of the City's Noise Ordinance exempts any government run facility that provides essential services to the City from noise restrictions. Therefore, the impact would be **less than significant.**

IMPACT 4.5-7:	FIRE STATION NOISE.		
Applicable Policies and Regulations:	City of Roseville Noise Ordinance Section 9.24.030 (D)		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant	Less Than Significant

SOI Amendment

The primary noise sources associated with fire stations include emergency sirens and alarms associated with responding to fires. Although the noise levels may be annoying to residential uses, these types of noise sources are exempt under the City of Roseville Noise Ordinance. Section 9.24.030(C) specifically states that: *Safety, warning and alarm devices, including house and car alarms, and other warning devices that are designed to protect the health, safety and welfare* are exempt. Section 9.24.030 (F) also specifically exempts "emergencies, involving the execution of duties…providing emergency response to the general public, including but not limited to…emergency personnel." Therefore, noise impacts associated with fire stations within the SOI Amendment Area are considered **less than significant.**

West Roseville Specific Plan

The WRSP proposes a new fire station located on the west side of Hayden Parkway. The station is surrounded by high-density residential uses to the north, open space to the south, Citywide park to the west, and low density residential to the east. Fire station noise can be loud, due to sirens. However, the noise would be intermittent, limited to emergency response and possibly training and maintenance periods. As discussed above, Section 9.24.030(C) and (F) specifically exempt noise associated with fire stations from City of Roseville Noise standards. Therefore, this impact is **less than significant.**

Remainder Area

No fire stations have been identified in the Remainder Area. However, it is anticipated that when development occurs within the Remainder Area at least one fire station would be required. As described above, the primary noise sources associated with fire stations are intermittent and are exempt under the City of Roseville Noise Ordinance, Section 9.24.030(C) and (F). Therefore, this impact is **less than significant.**

IMPACT 4.5-8:	ON-SITE TRAFFIC NOISE.		
Applicable Policies and Regulations:	City of Roseville General Plan Noise Element		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant	Significant
Mitigation Measures:	MM 4.5-8 (on-site traffic noise attenuation requirements) (WRSP) MM 4.5-10 (On-site traffic noise policies) (Remainder Area)	MM 4.5-8 (On-site traffic noise attenuation)	MM 4.5-10 (On-site traffic noise policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant	Less Than Significant

On-Site Traffic Noise

SOI Amendment

Projected future noise levels were calculated based on existing noise levels and the traffic analysis completed by DKS Associates, Transportation Consultants. Within the SOI Amendment Area, on-site traffic noise associated with future development would contribute to increased noise levels (refer to Table 4.5-11). Residential uses could be located near roadways, which would experience noise levels above 60 dBA due to traffic, specifically, the roadway segment along Blue Oaks Boulevard, Hayden Parkway, and Pleasant Grove Boulevard. The residential uses located along these segments would therefore experience this noise level at 100 feet from the roadway centerline. This would result in a potentially significant impact. However, MM 4.5-8 and MM 4.5-10 require acoustic analyses demonstrating that a combination of setbacks, barriers, building orientation, and construction techniques which would be adequate to ensure that noise levels meet City standards where residential uses are located inside of the 60 dB L_{dn} noise level contours, as well as specific construction requirements and development of specific noise policies for future development. Compliance with these mitigation measures would ensure that future sensitive receptors within the SOI area would not be exposed to on-site traffic noise in excess of City standards. This impact would be reduced to a **less-than-significant** level with mitigation.

Table 4.5-11 FHWA Traffic Noise Prediction Results 2020 Plus SOI Amendment

Roadway/Segment	Traffic Noise Levels (Ldn, dB)100 feet from Centerline			SOI Amendment Distance to Ldn Contours	
	No project	SOI Amendment	Change	65 dB L_{dn}	60 dB L_{dn}
S.R. 65					
South of Pleasant Grove	78	79	1	793'	1708'
Pleasant Grove to Blue Oaks	78	78	0	787'	1696'
Blue Oaks to Sunset	79	79	0	831'	1791'
Roseville Parkway					
South of Pleasant Grove	70	70	0	214	461
Pleasant Grove to Washington	67	67	0	142	306
Washington to Foothills	68	68	0	148	319
Sunset					
East of S.R. 65	67	68	1	147	316
Foothills					
Baseline to Junction	70	70	0	200'	431'
Junction to Pleasant Grove	70	70	0	195'	420'
Pleasant Grove to Blue Oaks	68	68	0	167'	359'
Woodcreek					
Baseline to Junction	63	63	0	69'	148'
Junction to Pleasant Grove	68	68	0	149'	322'
Pleasant Grove to Blue Oaks	66	66	0	114'	245'
North of Blue Oaks	63	64	1	88'	189'
Fiddyment					
South of Baseline	67	68	1	156'	337'
Baseline to Pleasant Grove	68	69	1	171'	367'
Pleasant Grove to Blue Oaks	64	67	3	145'	313'
Blue Oaks to Hayden	62	66	4	110'	236'
N. of Hayden	62	66	4	111'	239'
Baseline					
West of Watt	68	68	0	167'	360'
Watt to Fiddyment	70	69	1	188'	405'
Fiddyment to Junction	69	69	0	193'	417'
Junction to Woodcreek	67	67	0	145'	313'
Woodcreek to Foothills	68	68	0	160'	344'
Foothills to Washington	59	60	1	45'	98'
Junction					
Baseline to Woodcreek	66	67	1	132'	284'
Woodcreek to Foothills	65	65	0	106'	228'
Foothills to Washington	67	67	0	140'	303'
Pleasant Grove					
West Side to Fiddyment	NA	66	NA	112'	242'
Fiddyment to Woodcreek	67	68	1	162'	349'
Woodcreek to Foothills	69	70	1	209'	451'
Foothills to Washington	70	71	1	234'	504'
Washington to Roseville Parkway	69	70	1	207'	445'
Roseville Parkway to S.R. 65	71	71	0	236'	508'

Table 4.5-11 FHWA Traffic Noise Prediction Results 2020 Plus SOI Amendment

Roadway/Segment	Traffic Noise Levels (Ldn, dB)100 feet from Centerline			SOI Amendment Distance to Ldn Contours	
	No project	SOI Amendment	Change	65 dB L_{dn}	60 dB L_{dn}
Blue Oaks					
West Side to Hayden	NA	66	NA	119'	256'
Hayden to Fiddyment	NA	67	NA	137'	295'
East of Fiddyment	64	67	3	139'	299'
West of Woodcreek	66	69	3	181'	389'
Woodcreek to Foothills	69	70	1	221'	477'
Foothills to S.R. 65	70	70	0	225'	485'
S.R. 65 to Sunset	68	67	1	134'	289'
West Side					
Baseline to Pleasant Grove	NA	67	NA	129'	278'
Pleasant Grove to Blue Oaks	NA	67	NA	132'	284'
Hayden					
North of Blue Oaks	NA	61	NA	55'	117'
South of Blue Oaks	NA	62	NA	61'	131'

SOURCE: Bollard & Brennan, Inc., 2003

West Roseville Specific Plan

Future noise levels were calculated based on existing noise levels and the traffic analysis completed by DKS Associates, Traffic Consultants. Tables 4.5-12 and 4.5-13 show the resulting future traffic noise levels on the local street system under existing conditions with and without the WRSP. As shown in Table 4.5-12, those roads within the WRSP that would have noise levels that exceed 60 dB L_{dn} include Fiddyment Road, Pleasant Grove Boulevard, Blue Oaks Boulevard, West Side Drive, and Hayden Parkway. Depending on the distance to actual residents in these locations, exterior and interior noise levels could exceed City standards. This would be a **potentially significant** impact.

Table 4.5-12 FHWA Traffic Noise Prediction Results 2020 Plus WRSP

Roadway/Segment	Traffic Noise Levels (Ldn, dB)100 feet from Centerline			SOI Amendment Distance to Ldn Contours	
	No project	SOI Amendment	Change	65 dB L_{dn}	60 dB L_{dn}
S.R. 65					
South of Pleasant Grove	78	78	0	788'	1697'
Pleasant Grove to Blue Oaks	78	78	0	785'	1691'
Blue Oaks to Sunset	79	79	0	830'	1788'
Roseville Parkway					
South of Pleasant Grove	70	70	0	212'	457'
Pleasant Grove to Washington	67	67	0	142'	305'
Washington to Foothills	68	67	1	145'	312'
Sunset					
East of S.R. 65	67	67	0	143'	308'
Foothills					
Baseline to Junction	70	70	0	204'	440'
Junction to Pleasant Grove	70	70	0	199'	428'
Pleasant Grove to Blue Oaks	68	68	0	164'	354'

Table 4.5-12 FHWA Traffic Noise Prediction Results 2020 Plus WRSP

Roadway/Segment	Traffic Noise Levels (Ldn, dB)100 feet from Centerline			SOI Amendment Distance to Ldn Contours	
	No project	SOI Amendment	Change	65 dB L_{dn}	60 dB L_{dn}
Woodcreek					
Baseline to Junction	63	64	1	85'	183'
Junction to Pleasant Grove	68	69	1	172'	370'
Pleasant Grove to Blue Oaks	66	66	0	116'	251'
North of Blue Oaks	63	64	1	83'	178'
Fiddyment					
South of Baseline	67	68	1	149'	320'
Baseline to Pleasant Grove	68	68	0	160'	345'
Pleasant Grove to Blue Oaks	64	67	3	134'	289'
Blue Oaks to Hayden	62	65	3	103'	222'
N. of Hayden	62	65	3	99'	214'
Baseline					
West of Watt	68	68	0	155'	333'
Watt to Fiddyment	70	70	0	205'	442'
Fiddyment to Junction	69	70	1	199'	428'
Junction to Woodcreek	67	67	0	142'	305'
Woodcreek to Foothills	68	68	0	152'	327'
Foothills to Washington	59	60	1	45'	97'
Junction					
Baseline to Woodcreek	66	67	1	126'	272'
Woodcreek to Foothills	65	64	-1	90'	194'
Foothills to Washington	67	67	0	132'	284'
Pleasant Grove					
West Side to Fiddyment	NA	64	NA	80'	173'
Fiddyment to Woodcreek	67	67	0	136'	293'
Woodcreek to Foothills	69	70	1	198'	428'
Foothills to Washington	70	70	0	227'	488'
Washington to Roseville Parkway	69	70	1	202'	435'
Roseville Parkway to S.R. 65	71	71	0	234'	504'
Blue Oaks					
West Side to Hayden	NA	63	NA	77'	165'
Hayden to Fiddyment	NA	66	NA	109'	234'
East of Fiddyment	64	67	3	125'	269'
West of Woodcreek	66	68	2	162'	349'
Woodcreek to Foothills	69	70	1	214'	460'
Foothills to S.R. 65	70	70	0	221'	476'
S.R. 65 to Sunset	68	70	2	134'	289'
West Side					
Baseline to Pleasant Grove	NA	NA	NA	NA	NA
Pleasant Grove to Blue Oaks	NA	63	NA	69'	149'
Hayden					
North of Blue Oaks	NA	61	NA	56'	121'
South of Blue Oaks	NA	61	NA	57'	122'

SOURCE: Bollard & Brennan, Inc., 2003.

Table 4.5-13 Traffic Noise Levels and Distances to Contours with West Roseville Specific Plan

Roadway	From	To	L_{dn} at 75 ft. (dB)	Distance to Noise Level Contours (ft.)	
				60 dB	65 dB
S.R. 65	S. of Pleasant Grove		80	1697	788
S.R. 65	Pleasant Grove	Blue Oaks	80	1691	785
S.R. 65	Blue Oaks	Sunset	81	1788	830
Roseville Parkway	S. of Pleasant Grove		72	457	212
Roseville Parkway	Pleasant Grove	Washington	69	305	142
Roseville Parkway	Washington	Foothills	69	312	145
Roseville Parkway	East of I-80		71	438	203
Sunset	East SR-65		69	308	143
Foothills	Baseline	Junction	72	440	204
Foothills	Junction	Pleasant Grove	71	428	199
Foothills	Pleasant Grove	Blue Oaks	70	354	164
Foothills	N. of Cirby		73	556	258
Woodcreek	Baseline	Junction	66	183	85
Woodcreek	Junction	Pleasant Grove	70	370	172
Woodcreek	Pleasant Grove	Blue Oaks	68	251	116
Woodcreek	N. of Blue Oaks		66	178	83
Fiddyment	S. of Baseline		69	320	149
Fiddyment	Baseline	Pleasant Grove	70	345	160
Fiddyment	Pleasant Grove	Blue Oaks	69	289	134
Fiddyment	Blue Oaks	Hayden	67	222	103
Fiddyment	N. of Hayden		67	214	99
Baseline	W. of Watt		70	333	155
Baseline	Watt	Fiddyment	72	442	205
Baseline	Fiddyment	Junction	71	428	199
Baseline	Junction	Woodcreek	69	305	142
Baseline	Woodcreek	Foothills	70	327	152
Baseline	Foothills	Washington	66	182	84
Junction	Baseline	Woodcreek	68	272	126
Junction	Woodcreek	Foothills	66	194	90
Junction	Foothills	Washington	69	284	132
Pleasant Grove	West Side	Fiddyment	65	173	80
Pleasant Grove	Fiddyment	Woodcreek	69	293	136
Pleasant Grove	Woodcreek	Foothills	71	428	198
Pleasant Grove	Foothills	Washington	72	488	227
Pleasant Grove	Washington	Roseville Parkway	71	435	202
Pleasant Grove	Roseville Parkway	S.R. 65	72	504	234
Blue Oaks	West Side	Hayden	65	165	77
Blue Oaks	Hayden	Fiddyment	67	234	109
Blue Oaks	E. of Fiddyment		68	269	125
Blue Oaks	W. of Woodcreek		70	349	162
Blue Oaks	Woodcreek	Foothills	72	460	214
Blue Oaks	Foothills	S.R. 65	72	476	221
Blue Oaks	S.R. 65	Sunset	69	289	134

Table 4.5-13 Traffic Noise Levels and Distances to Contours with West Roseville Specific Plan

Roadway	From	To	L_{dn} at 75 ft. (dB)	Distance to Noise Level Contours (ft.)	
				60 dB	65 dB
West Side	Baseline	Pleasant Grove	0	0	0
West Side	Pleasant Grove	Blue Oaks	64	149	69
Hayden	N. of Blue Oaks		63	121	56
Hayden	S. of Blue Oaks		63	122	57
I-80	W. of Auburn		83	2531	1175
I-80	Cirby	Douglas	83	2403	1115
I-80	Douglas	Lead Hill	82	2335	1084
I-80	Lead Hill	Roseville Parkway	83	2542	1180
I-80	E. of Roseville Parkway		81	1891	878
Riverside		N. of I-80	69	304	141
Auburn	S. of I-80		70	360	167
Washington	W. of Atlantic		70	336	156
Atlantic	W. of I-80		70	351	163
Galleria Blvd	Lead Hill	S.R. 65	71	430	200
Standford Ranch	North of S.R. 65		71	399	185
Taylor Road	North of I-80		72	465	216
Sunrise	S. of Cirby		72	479	222
Sunrise	N. of Cirby		73	514	239
North Sunrise	Douglas	Eureka	71	420	195
Cirby	W. of Sunrise		72	447	208
Cirby	E. of Sunrise		70	336	156
Douglas	W. of I-80		70	329	153
Douglas	I-80	Rocky Ridge	72	495	230
Douglas	East of Rocky Ridge		72	493	229
Eureka	I-80 to Rocky Ridge		72	463	215
Eureka	East of Rocky Ridge		70	333	154
Sierra College	North of Douglas		70	344	160
Sierra College	South of Douglas		72	447	208
Rocky Ridge	Cirby	Douglas	69	322	149
Rocky Ridge	Douglas	Roseville Parkway	70	366	170
Roseville Road	South of Cirby		70	339	158
Vernon	North of Douglas		68	245	114

SOURCE: Bollard & Brennan, Inc., 2003.

Based upon the noise analysis, proposed residential uses that are exposed to traffic noise levels that exceed 60 dB L_{dn} would be required to use measures to reduce noise levels in outdoor activity areas to 60 dB L_{dn} or less. A combination of setbacks and soundwalls, are expected to provide adequate mitigation to reduce traffic noise levels to 60 dB L_{dn}. However, relative elevations of the roadways, elevations of the building pads, and distances from outdoor areas to the roadway centerlines can affect the performances of the barriers.

In many cases, the buildings are located in close proximity to roadways. In those instances, outdoor activity areas are located at the rear of the buildings. Therefore, outdoor areas would be shielded from roadway noise by the buildings and exterior noise levels at the outdoor activity areas are expected to comply with the City of Roseville exterior noise level criteria.

MM 4.5-8 requires acoustic analyses demonstrating that a combination of setbacks, barriers, building orientation, and construction techniques would be adequate to ensure that noise levels meet City standards where residential uses are located, as well as specific construction requirements and development of specific noise policies for future development. Compliance with these mitigation measures would ensure that future sensitive receptors within the WRSP would not be exposed to on-site traffic noise in excess of City standards. This impact would be reduced to a **less-than-significant** level with mitigation.

WRSP Operational Impacts to the Project

The WRSP includes a mix of residential and commercial uses within the Village Center (see Chapter 2, Project Description). The mix of uses could include commercial uses on the first floor with residential above, or higher density residential with roadway interfaces (such as "Brownstone" type townhomes). Compliance with the Uniform Building Code (UBC) and Title 24 of the California Code requires that specific sound transmission standards be adhered to between uses that share a common wall and common floor/ceiling. The standard rating of Sound Transmission Classification (STC) and Impact Insulation Classification (IIC) of 50 is required to reduce sound transmissions between uses such as between residences and commercial and residential uses, consistent with Title 24. Compliance with these standards is handled through the City's Building Department.

The City of Roseville interior noise level standard is 45 dB L_{dn}. Generally, new construction practices consistent with the UBC would result in an exterior to interior noise reduction of 30 dB L_{dn}. Therefore, interior noise levels would not exceed 45 dB L_{dn}. This would be considered a **less-than-significant** impact.

Remainder Area

As with the WRSP, traffic noise along roadways in the Remainder Area may exceed 60 L_{dn} at some locations, which could be a significant impact. Because no specific development is proposed at this time, it is difficult to quantify future internal noise impacts. Additional environmental review will be required at the time specific development is proposed in the Remainder Area to determine potential roadway noise levels. MM 4.5-10 requires that future development would be subject to the City of Roseville noise standards and that mitigations such as setbacks, soundwalls, or building orientation, would be required

to ensure that noise levels meet acceptable standards. With mitigation, noise levels from the development within the Remainder Area would be reduced to a **less-than-significant** level.

IMPACT 4.5-9:	OFF-SITE TRAFFIC NOISE LEVELS.		
Applicable Policies and Regulations:	An increase in noise levels of more than 3 dB L_{dn} is considered to be a significant increase in noise levels.		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Significant	Less Than Significant	Significant
Mitigation Measures:	MM 4.5-10 (On-site traffic noise policies)	None Required	MM 4.5-10 (on-site traffic noise policies)
Significance after Mitigation:	Significant and Unavoidable	Less Than Significant	Significant and Unavoidable

SOI Amendment/Remainder Area

Noise levels associated with increased traffic noise are anticipated to increase on roadways adjacent to the SOI Amendment Area. While the WRSP would not increase off-site noise levels by more than 3 dB L_{dn}, the full SOI Amendment would increase noise levels by as much as 4 dB L_{dn} (see Table 4.5-10). The increase in traffic noise could disturb residences adjacent to these roadways and exceed the City's standards. This is considered a potentially **significant and unavoidable** impact.

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Table 4.5-11 summarizes the roadways that would be most affected by WRSP traffic noise. As shown in Table 4.5-11, portions of the existing street system noise levels would increase between 1 dB and 3 dB L_{dn}. Increases along other roadways would be lower than 3 dB L_{dn}. Because no increase would exceed 3 dB, the change in noise would not be audible, so this is considered a **less-than-significant** impact.

IMPACT 4.5-10:	CHANGES TO CITY NOISE CONTOURS.		
Applicable Policies and Regulations:	None Applicable		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant	Significant
Mitigation Measures:	MM 4.5-10 (On-site traffic noise policies)	None Required	MM 4.5-10 (on-site traffic noise policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant	Less Than Significant

Noise Contours

West Roseville Specific Plan

A number of amendments to the General Plan have been proposed to incorporate the WRSP area into the City, if the plan is approved (see Chapter 2, Project Description for a complete list of amendments). With respect to noise, the City would adopt a new map showing noise contours in the City, based on the 2020 traffic levels (see Figure 4.5-3 and Table 4.5-12).

The last time the City updated its Citywide noise contours was 1993, when the current General Plan was adopted. The proposed noise contours would update the General Plan for the WRSP, as well as other General Plan amendments and project approvals that have occurred since 1993. For this EIR, noise contours were prepared for 2020, assuming buildout of the General Plan and approved development (baseline), and 2020 baseline with the WRSP (the "without WRSP" condition is shown in Figure 4.5-2 and Table 4.5-6).

As discussed under Impact 4.5-9, the increase in traffic noise due to the WRSP would not be substantial. WRSP traffic would increase noise levels between 1 dB and 3 dB L_{dn} along portions of existing and planned roadways. Because the increases would be less than 3 dB, they would not be generally audible to people living or traveling along those roadways. Nonetheless, the increase in traffic noise would increase the distance to the 60 dB and 65 dB contours. That is, more land would be located in areas with noise levels above 65 dB. For example, along the segment of Baseline from Watt Avenue to Fiddyment Road, the distance to the 60 dB contour would increase from 204 feet to 205, so an additional 1 linear foot of parcels fronting Baseline Road would be subject to noise levels above 65 dB. The change in distance to the 60 or 65 dB contour would go down in some cases (the redistribution of traffic as a result of the WRSP would decrease traffic levels and noise on some segments) and would be as high as 45 feet for the 65 dB contour or 97 feet for the 60 dB contour. In most cases, however, the increase would be under 10 and 20 feet, respectively, and would occur in areas that have been developed fairly recently and with substantial setbacks from roadways and sound walls. As part of the analysis, Bollard and Brennan, the noise consultant, field-verified the locations where any substantial shift in the noise contour would occur to determine if sensitive receptors would be impacted. In all of the cases, soundwalls or non-residential uses were present that assured that exterior noise levels would meet the City's noise standard. As a result, it was determined that impacts to the General Plan noise contours as a result of the WRSP would be **less than significant.**

Remainder Area

Development of the Remainder Area would also increase traffic noise, and further alter traffic noise contours. Noise contours were not prepared for the Remainder Area, because it is not proposed for formal annexation to the City at this time. Nonetheless, because noise levels would be increased if the Remainder Area were developed, the distance to the 60 and 65 dB contours would increase. As discussed in Impact 4.5-9, the full SOI Amendment would increase noise levels by 4 dB, which could be perceptible to sensitive receptors living along affected roadways. This could result in a potentially significant impact. At the time development is proposed in the Remainder Area, additional environmental review as part of the specific plan process would be required to determine if significant changes in the General Plan 60 dBA noise contour would occur. As described in MM 4.5-10 Specific Plans and/or other development proposals for the Remainder Area shall include policies and/or conditions that require that residential development adjacent to roadways will be subject to traffic noise levels that fall within City standards. The standards could be achieved through a combination of setbacks, soundwalls or other barriers, building orientation or other measures. An acoustical analysis shall be required to demonstrate that these measures will result in acceptable noise levels. Therefore, this impact would be reduced to a **less than significant** level.

IMPACT 4.5-11:	GROUNDBORNE VIBRATION LEVELS.		
Applicable Policies and Regulations:	Excessive ground borne vibrations of more than 80 VdB is considered a significant level.		
	SOI	**WRSP**	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant	Less Than Significant

Construction activities that would occur under the proposed project have the potential to generate low levels of ground borne vibration. Table 4.5-14 identifies various vibration velocity levels for the types of construction equipment that would operate at the project site during construction.

Table 4.5-14 Vibration Source Levels for Construction Equipment

	Approximate VdB				
Construction Equipment	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet
Large Bulldozer	87	81	79	77	75
Loaded Trucks	86	80	78	76	74
Jackhammer	79	73	71	69	67
Small Bulldozer	58	52	50	48	46

SOURCE: Federal Railroad Administration 1998; EIP Associates 2003

Based on the information presented in Table 4.5-14, vibration levels could reach up to 87 VdB at the nearest properties located across the streets from the project site. This would exceed the 80 VdB threshold for residences and buildings where people normally sleep. However, the construction activities and their associated noise levels would be limited to between the hours of 7:00 A.M. and 7:00 P.M. on Monday through Friday, and 8:00 A.M. and 8:00 P.M. on Saturday and Sunday, in accordance with the City of Roseville Municipal Code. Therefore, they would not occur during recognized sleep hours for residences. Therefore, this impact would be **less than significant**.

Mitigation Measures

MM 4.5-1: *Construction noise reduction (Impact 4.5-1-WRSP)*

As discussed under Impact 4.5-1, compliance with the City's Noise Ordinance would result in a less-than-significant impact for construction noise. However, the following measures are recommended to further reduce the effects of construction noise on residents.

- Equipment warm-up areas, water tanks, and equipment storage areas shall be located a minimum of 150 feet from occupied residences, where feasible.
- Flexible sound control curtains shall be placed around drilling apparatus and drill rigs, if sensitive receptors are located nearby.

These measures would reduce the amount of noise at residences by placing stationary sources of noise far enough from residences that the noise generated would not be disturbing, particularly during the daytime, when construction activities would occur. In addition, they would assist in reducing the potential for noise disturbances and potential noise-related complaints.

MM 4.5-2: *Construction noise policies (Impact 4.5-1-Remainder Area)*

Specific Plans and/or other development proposals for the Remainder Area shall include policies and/or conditions that require equipment warm-up areas, water tanks and equipment storage areas be located a minimum of 150 feet from occupied residences, if feasible, and that noise measures (such as sound control curtains) be used in well-drilling.

MM 4.5-3: *Commercial noise control (Impact 4.5-2-WRSP)*

For all commercial uses within 150 feet of residential uses, implement the following or equally effective measures:

(a) For commercial loading docks and on-site truck circulation areas that are planned to be within 150 feet of sensitive receptors (including backyards), the following measures shall be implemented:

(1) Loading docks and on-site truck circulation routes shall be designed to ensure that noise levels do not exceed 70 dB L_{max} or 50 dB hourly L_{eq} at the nearest residence. An acoustic analysis shall demonstrate that the loading area design, including any noise attenuation features (e.g., covering, sound walls, orientation) would be adequate to achieve this standard;

and

(2) Deliveries shall generally be limited to the hours between 7:00 A.M. and 10:00 P.M.

(b) For all commercial buildings, roof-top HVAC shall be oriented away from residential areas and systems shall not produce noise levels that exceed 50 dB at a distance of 25 feet. In addition, roof-top parapets shall block line-of-sight from noise-sensitive uses to HVAC equipment.

(c) Setbacks or enhanced barriers (e.g., 8 feet tall) as needed to achieve City standards.

An acoustical analysis shall be conducted to demonstrate that City noise standards would be achieved by these measures. Additional measures shall be implemented, if needed, to meet the standards.

MM 4.5-4: *Commercial noise policies (Impact 4.5-2-Remainder Area)*

Specific Plans and/or other development proposals for the Remainder Area shall include policies and/or conditions that require that commercial areas located adjacent to residential area are designed to meet City noise standards through the use of setbacks, barriers, and other measures. Particular attention shall be given to loading docks, on-site truck circulation, and HVAC equipment. To the extent feasible, specific plans and/or development proposals for the remainder area shall locate commercial uses at least 1500 feet from residences.

MM 4.5-5: *Industrial facilities noise controls (Impact 4.5-3-WRSP)*

Prior to approval of a building permit, any proposal for an industrial or light industrial use shall demonstrate through an acoustical analysis that noise levels at the nearest sensitive receptor will not exceed City standards. The noise standards may be achieved through a combination of setbacks, soundwalls or other barriers, and other noise control techniques such as silencers on exhaust stacks and ventilation openings, enclosures around noisy equipment, and orienting noisy equipment or processing facilities away from noise-sensitive receivers.

MM 4.5-6: Attenuate park noise (Impact 4.5-5-WRSP)

(a) The proposed soccer fields located in the northern portion of the proposed regional sports complex park shall be enclosed or shielded through the use of berms or barriers. A minimum of an 8 dB to 10 dB reduction in noise can be achieved through the site design or through the use of walls and berms. This type of reduction of noise levels is expected to result in compliance with the City of Roseville daytime noise level standards. In addition, the City of Roseville Parks Department allows parks to be open until 11:00p.m. However, due to the frequent use of the facility and the unique ability of public parks to generate noise, any function, which would generate noise beyond the 70dB threshold, as discussed earlier, shall be limited to the hours of 7:00 to 10:00p.m.

(b) The Garden Bandstand shall be shielded from residential uses by berms or other barriers, or amplification at musical events shall be limited to maximum noise levels of 80 dB L_{max} at the property line of the property where the event is held. Amplified events shall be prohibited if it cannot be demonstrated that this standard can be met. In addition, amplified music shall be allowed only between the hours of 8:00 A.M. and 10:30 P.M. on Sunday through Thursday and between the hours of 8:00 A.M. and 11:00 P.M. on Fridays and Saturdays.

MM 4.5-7: Park noise policies (Impact 4.5-5-Remainder)

Specific Plans and/or other development proposals for the Remainder Area shall include policies and/or conditions that ensure that park noise meets City standards, as demonstrated by appropriate acoustical analyses.

MM 4.5-8: On-site traffic noise attenuation (Impact 4.5-8-WRSP-SOI)

The project developer shall demonstrate through an acoustical study that residences along roadways will be subject to noise levels consistent with the City's standards. The standards could be achieved through a combination of setbacks, soundwalls or other barriers, building orientation or other measures. An acoustical analysis shall be required to demonstrate that these measures will result in acceptable noise levels.

MM 4.5-9: Village Center construction requirements (Impact 4.5-8-WRSP-SOI)

In addition to complying with the standard construction practices set forth in the Uniform Building Code, the following shall be required for those residences in the Village Center that front roadways:

- Air conditioning or mechanical ventilation systems shall be installed so that windows and doors may remain closed.

- Windows and sliding glass doors shall be mounted in low infiltration rate frames (0.5 cfm or less, per ANSI specifications).
- Exterior doors shall be solid core with perimeter weather-stripping and threshold seals.
- Exterior walls shall be constructed of a three-coat stucco or wood siding with an underlayer of sound board.
- Glass in both windows and exterior doors shall have a Sound Transmission Classification (STC) rating of at least 32.
- Roof or attic vents facing the road shall be boxed.
- Compliance with these standard constructions practices would provide an attenuation of 30 dB.

MM 4.5-10: On-site traffic noise policies (Impact 4.5-8-SOI and Remainder Area)

Specific Plans and/or other development proposals for the Remainder Area shall include policies and/or conditions that require that residential development adjacent to roadways will be subject to traffic noise levels that fall within City standards. The standards could be achieved through a combination of setbacks, soundwalls or other barriers, building orientation or other measures. An acoustical analysis shall be required to demonstrate that these measures will result in acceptable noise levels.

4.6 GEOLOGY, SOILS, AND SEISMICITY

4.6.1 Introduction

This section addresses potential effects related to on-site geologic and soils conditions in the SOI Amendment Area. Site characteristics such as topography, regional and local geology, seismicity, soil types, and mineral resources are described. This information is based on information summarized from the following sources:

- *Natural Resources Conservation Service* (NRCS) (formerly the U.S. Soil Conservation Service)
- *West Placer County Soil Survey, 1980*
- *West Roseville Baseline Study, Geologic and Mineral Resource Reports* by the California Geological Survey (CGS) (formerly the California Division of Mines and Geology)
- Existing reports on geologic conditions in the area

Information referenced in the footnotes in this section is available for review at the City of Roseville Permit Center, 311 Vernon Street, Roseville, California.

No comments on the NOP were submitted regarding geologic conditions in the SOI Amendment Area.

Development of the SOI Amendment Area would not result in the loss of, or loss of availability of mineral resources that would be of value to the region or state, or loss of a locally important mineral resource recovery site delineated in the City's General Plan. These issues are not further evaluated in this EIR.

As discussed in Chapter 1, Introduction, this EIR evaluates the impacts of the WRSP, which would include a Sphere of Influence Amendment and annexation to the City, at a project-specific level. Because a Sphere Amendment is the only action proposed for the Remainder Area (that portion of the SOI Amendment Area outside of the WRSP), a program-level analysis is provided for the full SOI Amendment. In order to conduct the analysis, development assumptions are made for the Remainder Area (see Chapter 2, Project Description, for details). Figure 1-1 (SOI Amendment Area) in Chapter 1, Introduction, identifies the boundaries of the WRSP Area and Remainder Area (comprising the entire SOI Amendment Area).

As discussed in Chapter 4 of this EIR, Environmental Analysis, minor changes have been made to the proposed land uses for the WRSP since publication of the NOP. Overall the total amount of open space increased by 34.9 acres, primarily along the western boundary of the WRSP. However, the total amount

of area to be disturbed is very similar to the prior land use plan (August NOP). The open space corridors along Pleasant Grove Creek and Curry Creek have not changed.

4.6.2 Environmental Setting

Topography

The SOI Amendment Area is located within western Placer County, west of the City of Roseville. The approximately 5,400-acre site is characterized by gently rolling and undulating terrain with some steep cut banks located along creek channels. The SOI Amendment Area gently slopes to the west with topographically flatter land located along the western border. Elevations range from approximately 85 feet above mean sea level (msl) along the creek corridors and in the Remainder Area, to 120 feet msl in the WRSP area.

The dominant features in the WRSP area are Pleasant Grove and Kaseberg Creeks, which traverse and drain the area in an easterly to westerly direction. Pleasant Grove Creek is generally the north/south divide for the Fiddyment property. Kaseberg Creek converges with Pleasant Grove Creek near the center of the WRSP project area. Curry Creek crosses the southeast and southwest corner of the WRSP project area and northern portion of the Remainder Area in the vicinity of Baseline Road.

Regional Geology

The SOI Amendment Area is situated within the Great Valley geomorphic province. The geologic formations of the Great Valley on the east side of the Sacramento valley are typified by thick sequences of alluvial (water-deposited) sediments derived from erosion of the Sierra Nevada. The geology in the vicinity of the SOI Amendment Area consists of transitional formations between the alluvial deposits of the Great Valley and granitic material characteristic of the Sierra Nevada. The Roseville area is principally underlain by relatively recent Plio-Pleistocene non-marine sedimentary deposits formed during the last 600,000 years.

Geology

The CGS *Geologic Map of the Sacramento Quadrangle* (1981) identifies three geologic units in the SOI Amendment Area: the Turlock Lake Formation, the Riverbank Formation, and Quaternary alluvium. The location of geologic units is shown on Figure 4.6-1 (Geologic Map).

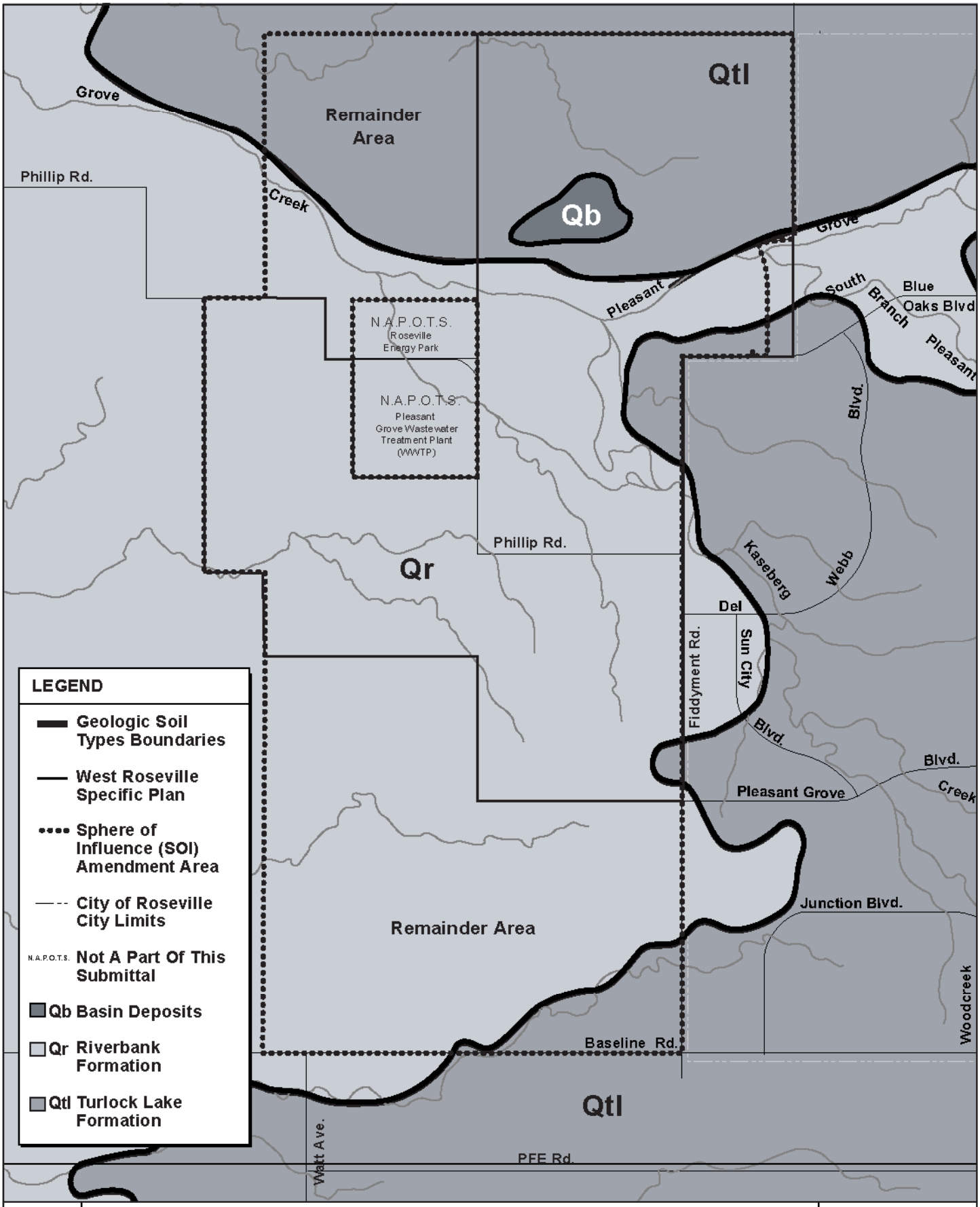


FIGURE **4.6-1**
Geologic Map

Not to Scale

10659-00

Source: EIP Associates, 2003

City of Roseville

Turlock Lake Formation

The Turlock Lake Formation (Qtl on Figure 4.6-1) consists of deeply weathered sandstone (arkosic) sediments composed on semi-consolidated gravel, sand, and silt that form highly dissected alluvial fans developed along the east margin of the Sacramento Valley between 450,000 and 600,000 years ago. The surface soil typically contains zones of cemented sand and silt (hardpan). This formation consists of eroded alluvial fans derived primarily from plutonic rocks (igneous rocks formed at great depth) of the Sierra Nevada. A principal constraint associated with the Turlock formation is the relative impermeability and limited water holding capability of the material.[92]

Riverbank Formation

The Riverbank Formation (Qr on Figure 4.6-1) consists of moderately weathered reddish arkosic sediment composed of unconsolidated to semi-consolidated gravel, sand, and silt. These sediments form dissected alluvial terraces and fans that were developed along the east margin of the Sacramento Valley between 150,000 and 450,000 years ago. Soils associated with this formation are typically well drained and are underlain at varying depths by impervious clay hardpan.[93]

Quaternary Alluvium

This geologic unit (Qb on Figure 4.6-1) is comprised of deposits of cobbles, gravel, silt, sand and clay. The unconsolidated terrace deposits and recent stream deposits are found along the creek channels within the SOI Amendment Area. Soils originating from alluvial deposits are typically well drained, and vary in depth to an impervious layer of clay hardpan.[94]

Geologic Constraints

Slope Instability

Landslides and slope stability are not known to be a problem in the SOI Amendment Area because of the low slopes and gently undulating terrain. However, there are some steep channels along Pleasant Grove Creek and Kaseberg Creek within the WRSP area. In some areas, these cut banks result in the creek bed lying 10 to 15 feet below the surrounding topography. The segments of Curry Creek that cross the Remainder Area are not as deeply incised as Pleasant Grove and Kaseberg creeks.

[92] *Sacramento Quadrangle – Map No. 1A*, California Division of Mines and Geology, 1979.
[93] City of Roseville, *Comprehensive Land Use Element Update Project, Draft Environmental Impact Report*, 1995, page 4.3-4.
[94] City of Roseville, *Comprehensive Land Use Element Update Project, Draft Environmental Impact Report*, 1995, page 4.3-4.

Subsidence

Subsidence is the sinking of the ground surface usually due to groundwater withdrawal or other subsurface collapse or extraction. The Roseville area is not known to have experienced significant subsidence or subsequent constraints to development due to subsidence.[95]

Seismicity

Regional Faults

The SOI Amendment Area is located between the seismically active Coast Ranges and the historically seismic Foothills fault zone in the Sierra Nevada. There are a number of mapped faults within 50 miles of the SOI Amendment Area. Regional faults to the west include the Hayward fault (80 miles),[96] and to the east, the Bear Mountains (19 miles) and Melones faults (33 miles) in the Foothill fault zone. In addition, the Willows fault (7 miles) and Stockton fault (63 miles) are also in the Roseville vicinity, but are considered to be inactive faults with displacements occurring greater than two million years before the present.

Local Faults

Although faults have been identified within the Sacramento area, no active faults are known to exist within Placer County, and the SOI Amendment Area is not located within an Alquist-Priolo Earthquake Fault Zone (formerly known as Special Studies Zone). Placer County is classified as a low-severity earthquake zone.[97] The probable maximum expected earthquake intensity that can be anticipated in this zone would be VI or VII on the modified Mercalli Scale and a 5.0-5.9 in magnitude on the Richter Scale.[98] The last geologic activity recorded in the area with an intensity of 4 or greater measured on the Richter Scale occurred in 1908. The epicenter of this event was located on a north/south line between Folsom and Auburn and on an east/west line between Placerville and Roseville. There have been several less severe events since 1908, but no significant activity has been recorded in the vicinity.[99]

Active faults are those that have experienced displacement in historic time, while inactive faults have not. However, there is the potential for inactive faults to reactivate or experience displacement along a branch of the zone sometime in the future. An example of a fault zone that is considered to have

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[95] *City of Roseville General Plan*, November 18, 1992, *Safety Element*.
[96] Fault Activity Map of California and Adjacent Areas, California Department of Conservation, Division of Mines and Geology, 1994.
[97] *City of Roseville General Plan*, November 18, 1992.
[98] City of Roseville, *North Central Roseville Specific Plan, Annotated Draft Environmental Impact Report*, SCH # 88053010, 1990, page 4.3-9.
[99] City of Roseville, *North Central Roseville Specific Plan, Annotated Draft Environmental Impact Report*, SCH # 88053010, 1990, page 4.3-9.

reactivated is the Foothills fault zone. The zone was considered inactive until evidence of an earthquake (approximately 1.6 million years ago) was found near Spenceville, California. Then, in 1975, an earthquake occurred on another branch of the zone near the City of Oroville (now known as the Cleveland Hills Fault). Due to the potential for fault movement, even though the likelihood of the occurrence is low, the following discussion about inactive faults is included in this section.

There are no mapped active faults within Placer County; however, three inactive faults have been identified within 10 miles of the SOI Amendment Area. These include the Volcano Hill fault, the Linda Creek fault, and an unnamed fault alignment which extends east/west between Folsom Lake and the City of Rocklin. The Volcano Hill fault extends northwesterly from Volcano Hill for a distance of approximately one mile, terminating near Eureka Road. There has been no recorded activity along the fault; therefore, it is generally considered inactive. In 1973, the CGS identified the "Linda Creek fault." As the name implies, this inferred fault is located along Linda Creek. The extent of this alleged fault is limited to a segment of creek in the City of Roseville and Sacramento County, east of the SOI Amendment Area.[100] The unnamed fault extends east to west between Folsom Lake and the City of Rocklin. Segments of this fault are concealed, and consequently, unmapped. However the east/west alignment suggests that the fault could connect to the Bear Mountain fault, branches of which are located beneath Folsom Lake. The Bear Mountain fault is identified as one of the faults that could be undergoing reactivation as a result of continental tectonic activity. However, no such evidence has been observed along the unnamed fault alignment.

Secondary Seismic Hazards

Liquefaction

Liquefaction is defined as the loss of soil strength due to seismic forces acting on water-saturated granular soils, which leads to quicksand conditions that generate various types of ground failure. The potential for liquefaction must take into account soil type, soil density, depth to the groundwater table, and the duration and intensity of groundshaking. Liquefaction is most likely to occur in low-lying areas of poorly consolidated to unconsolidated water-saturated sediments or similar deposits. Though the City of Roseville's geographic location, soil characteristics and topography combined minimize the risk of liquefaction, a site-specific geotechnical study would be needed to characterize liquefaction potential in the SOI Amendment Area. The geotechnical study would be required as part of the building permit process and would be prepared prior to site development to ensure buildings, roadways, and utilities infrastructure are appropriately designed with regard to potential liquefaction hazard.

Soils

The distribution of soil units in the SOI Amendment Area is shown in Figure 4.6-2 (Soil Types). Each soil unit is listed in Table 4.6-1 (Soil Constraints) under the heading "Soil Name and Map Symbol" in the first column of the table. A brief description of each soil unit appears in the second column of the table under the heading "Physical Properties." As illustrated in Figure 4.6-2, the SOI Amendment Area consists predominantly of Cometa-Fiddyment complex (soil unit 141) and San Joaquin Cometa sandy loam (soil unit 182). These two units are characterized by the NRCS as having very slow permeability, low to high shrink-swell potential, slow runoff, and slight erosion hazard. The combination of these characteristics with the low topographic relief of the area contributes to the formation of vernal pools at the end of the rainy season. Vernal pools are discussed in Chapter 4.7, Biological Resources, of this EIR.

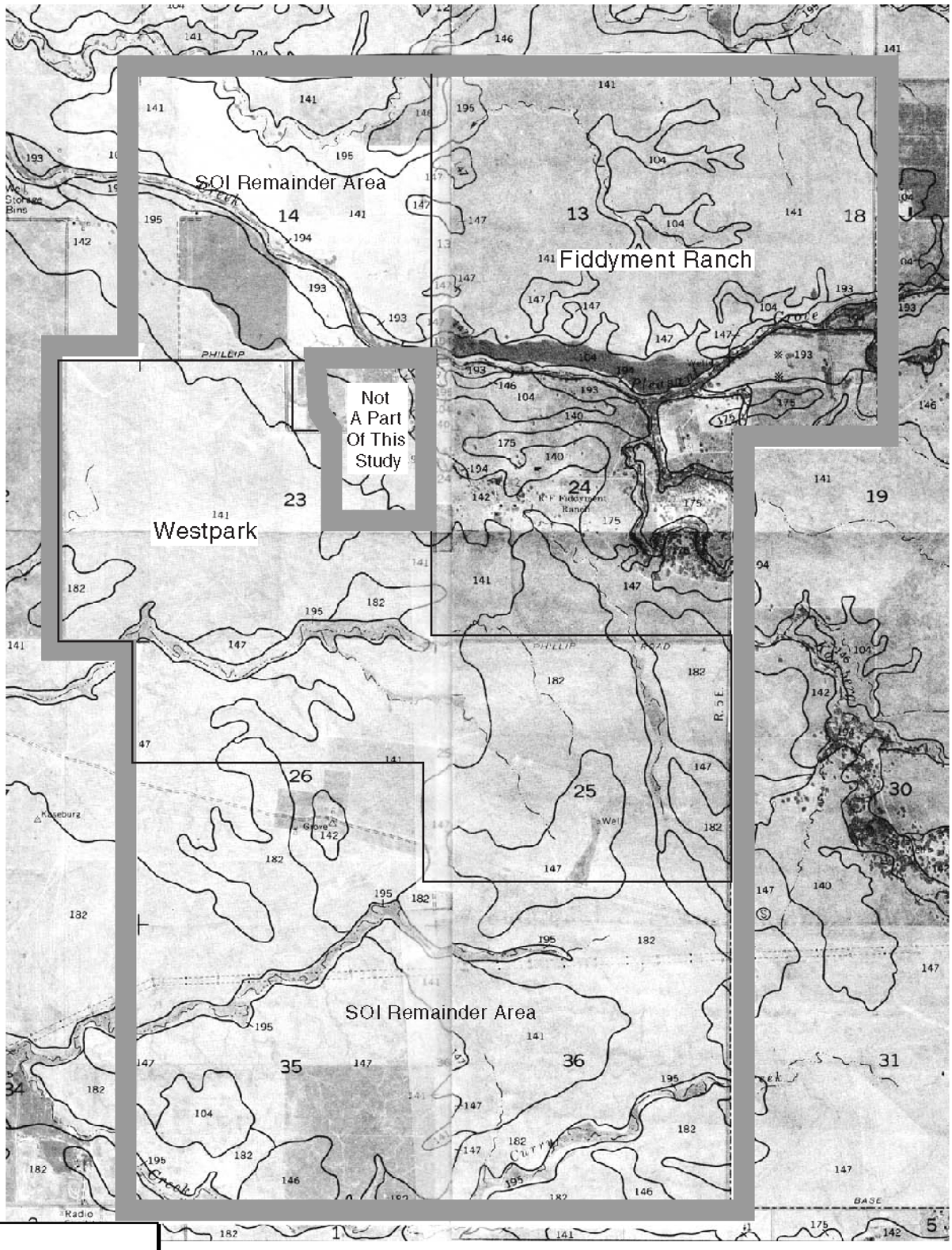
Soil Characteristics

Soils of the Central Valley are generally characterized as erosional deposits of the Sierra Nevada to the east. Soil limitations can include slow or very slow permeability, limited ability to support a load, high shrink-swell potential, moderate depth to hardpan, low depth to rock, and frequent flooding. The NRCS has identified and mapped soils in Placer County. Each identified soil has characteristics that affect soil behavior. Characteristics of relevance to the SOI Amendment include the following:

- *Permeability*: The ability of a soil to transmit water or air. Permeability is considered in the design and construction of soil drainage systems, where the rate of water movement under saturated conditions affects the behavior of water movement through the soil.
- *Shrink-Swell Potential*: The potential for volume change in a soil with a loss or gain in moisture. If the shrink-swell potential is rated moderate to high, damage to buildings, roads, and other structures can occur.
- *Runoff*: The volume of rainwater directly leaving an area in surface drainage, as opposed to the volume that seeps out as groundwater.
- *Erosion*: The susceptibility of a soil to water (rainfall) or wind transport.

Soil characteristics and engineering properties that could constrain development in the SOI Amendment Area were identified by the NRCS in the Soil Survey Placer County, California, Western Part (1980), and have been used for the purposes of impact analysis in this EIR. These four characteristics are described briefly below and discussed in relation to the SOI Amendment Area in the following section (Soil Constraints). Table 4.6-1 indicates the nature of the constraint (wetness or tendency to flood, high shrink-swell or expansion potential, low soil strength or compressibility, etc.) and summarizes the level of

[100] *City of Roseville General Plan*, November 18, 1992, *Safety Element*.



LEGEND

Sphere of Influence (SOI) Amendment Area

Soils Key: See Table 4.6-1 for Description of Soil Types

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FIGURE **4.6-2**
Soil Types

Not to Scale

Source: National Resources Conservation Service, Soil Survey of Western Placer County, 1980 City of Roseville

EIP ASSOCIATES

Table 4.6-1 Soil Constraints

Soil Name And Map Symbol	Physical Properties	Shallow Excavations	Dwellings Without Basements, Small Commercial Buildings	Local Roads And Streets	Grassed Waterways (Protects Against Erosion)
104 Alamo-Fiddyment Complex	Very Slow Permeability, High Shrink-Swell Potential Slow Runoff, Slight Erosion Hazard	Severe To Moderate (Wetness, Shallow Depth To Rock, Clayey, Cemented Pan)	Severe (Wetness, Shrink-Swell)	Severe (Wetness, Shrink-Swell, Low Strength)	Wetness, Cemented Pan, Slow Percolation, Erodes Easily, Depth To Rock
140 Cometa-Sandy Loam	Very Slow Permeability, Low To High Shrink-Swell Potential, Slow Runoff, Slight Erosion Hazard	Severe (Clayey)	Severe (Floods, Wetness)	Moderate (Wetness, Floods)	Slow Percolation
141 Cometa-Fiddyment Complex	Very Slow Permeability, Low To High Shrink-Swell Potential, Slow Runoff, Slight Erosion Hazard	Moderate To Severe (Depth To Rock, Shrink-Swell, Clayey)	Severe (Low Strength, Shrink-Swell)	Severe (Low Strength, Shrink-Swell)	Slow Percolation, Erodes Easily, Depth To Rock
142 Cometa-Ramona Sandy Loams	Very Slow To Moderate Permeability, Low To High Shrink-Swell Potential, Slow To Medium Runoff, Slight Erosion Hazard	Severe (Clayey)	Severe (Shrink-Swell, Low Strength)	Severe (Shrink-Swell, Low Strength)	Slow Percolation, Erodes Easily
146 Fiddyment Loam	Very Slow Permeability, Low To High Shrink-Swell Potential, Slow To Medium Runoff, Slight To Moderate Erosion Hazard	Moderate (Depth To Rock, Cemented Pan, Clayey)	Severe (Shrink-Swell)	Severe (Shrink-Swell, Low Strength)	Erodes Easily, Depth To Rock
147 Fiddyment-Kaseberg Loams	Very Slow To Moderate Permeability, Low To High Shrink-Swell Potential, Slow To Medium Runoff, Slight To Moderate Erosion Hazard	Moderate To Severe (Depth To Rock, Cemented Pan, Clayey)	Severe (Shrink-Swell, Depth To Rock)	Severe (Low Strength, Shrink-Swell, Cemented Pan, Depth To Rock	Erodes Easily, Depth To Rock
174 Ramona Sandy Loam	Moderately Slow Permeability, Low To Moderate Shrink-Swell Potential, Slow Runoff, Slight Erosion Hazard	Slight	Slight	Slight	Erodes Easily
175 Ramona Sandy Loam	Moderately Slow Permeability, Low To Moderate Shrink-Swell Potential, Slow To Medium Runoff, Slight To Moderate Erosion Hazard	Slight	Slight	Slight	Erodes Easily
182 San Joaquin-Cometa Sandy Loam	Very Slow Permeability, Low To High Shrink-Swell Potential, Slow Runoff, Slight Erosion Hazard	Severe (Cemented Pan, Clayey)	Severe (Shrink-Swell, Low Strength)	Severe (Shrink-Swell, Low Strength)	Slow Percolation, Cemented Pan
193 Xerofluvents – Occasionally Flooded	Moderate To Moderately Slow Permeability, Slow Runoff, Slight Erosion Hazard	Severe (Floods, Wetness)	Severe (Floods, Wetness)	Severe (Floods)	Wetness
194 Xerofluvents – Frequently Flooded	Variable Permeability, Slow Runoff, High Erosion Hazard	Severe (Floods, Wetness)	Severe (Floods, Wetness)	Severe (Floods)	Wetness
195 Xerofluvents – Hardpan Substratum	Moderately Slow Permeability, Slow Runoff, Slight Erosion Hazard	Severe (Floods, Wetness)	Severe (Floods, Wetness)	Moderate (Wetness, Floods)	Cemented Pan

SOURCE: Compiled From Natural Resources Conservation Service, Soil Survey Of Placer County, California, 1980, pp. 11 Through 72, Tables 7, 10, 12

constraint (slight, moderate, high, severe) for four types of construction activities expected to occur in the SOI Amendment Area. These activities include excavation and support for structures with shallow foundations (column 3 of the table); excavation and foundation support for dwellings without basements

and small commercial buildings (column 4); construction of local roads and streets (column 5); and the construction of grassed waterways (column 6). The City of Roseville's Improvement Standards require site-specific geotechnical studies to be prepared in conjunction with project approvals and building permits to ensure site development considerations and methods are used to manage soil conditions effectively and comply with the excavation and foundation support requirements of the City's Building Code.

Soil Constraints

Expansive Soils

Expansive soils (i.e., clay or silt) are those that greatly increase in volume when they absorb water (swell) and shrink when they dry out. Expansion can cause damage to building foundations, concrete slabs, hardscape, pavement, underground utility lines, and other surface or near-surface improvements. Soils with moderate to high expansion potential are located throughout the SOI Amendment Area. Soils having high silt and/or clay content that could be expansive are found throughout the SOI Amendment Area.

Runoff and Drainage

All of the surface soils identified in the SOI Amendment Area, with the exception of areas along stream channels, exhibit slow to very slow permeability. These soils transmit water and/or air very slowly and can cause significant ponding and soil drainage problems. For further detailed discussion of site drainage and runoff features (including hydrologic soil types), please see Section 4.12, Hydrology and Water Quality of this EIR.

Erosion

As shown in Table 4.6-1, most of the soils throughout the SOI Amendment Area exhibit slight erosion hazard. Fiddyment and Ramona loams (soil units 146, 147, and 175), which are moderately erosive, are scattered through the site. Only the Xerofluvents—Frequently Flooded (soil unit 194) is characterized as having a high erosion hazard. This soil unit is located generally within the channel of Pleasant Grove Creek and Kaseberg Creek.

Agricultural Soils

Soils are also categorized by their potential use as agricultural land. "Prime Farmland" is defined by the State Department of Conservation as land that has the best combination of physical and chemical characteristics for the production of crops. These lands generally consist of Class I and II soils. They have

the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods. Most of the soils at the SOI Amendment Area are Class III and IV, which have severe limitations for agricultural production. The Ramona soils (soil units 174 and 175) and Xerofluvents (193) are Class I and II;[101] however, these soils are limited in extent and are generally in the vicinity of proposed open space areas along Pleasant Grove Creek and Kaseberg Creek.

These soils are also designated as Prime Farmland by the California Department of Conservation[102] because they meet the criteria for Prime Farmland as outlined in the U.S. Department of Agriculture's Land Inventory and Mapping. Prime Farmland must have been used at some time during which soils mapping has been conducted.[103] In this case, the lands along Pleasant Grove Creek and Kaseberg Creek were designated as Prime Farmland in 1980 when agricultural operations on the Fiddyment property were active. Anecdotal evidence from the Fiddyment Family regarding the history and success of various agricultural operations on the property suggest that low soil quality has resulted in lower agricultural productivity than would be indicated by published soil surveys. See Section 4.8, Cultural Resources for a description of historical farming operations and Section 4.1, Land Use and Agricultural Resources for additional information regarding conversion of agricultural land.

Topsoil

Most of the topsoil in the SOI Amendment Area is characterized by the NRCS as "fair." These soils are loose, sandy soils or firm loamy or clayey soils in which the suitable material is only 8 to 16 inches thick, or soils that have appreciable amounts of gravel, stones, or soluble salt or are poorly drained. "Good" topsoil is present only in the Alamo-Fiddyment soils.[104] This soil unit is present generally adjacent to stream channels and is not abundant in the SOI Amendment Area. Forty acres within the WRSP are designated as Prime Farmland (see Section 4.1, Land Use Planning and Agricultural Resources).

Mineral Resources

CGS is responsible under the California Surface Mining and Reclamation Act of 1975 (SMARA) for the classification and designation of areas that contain (or could contain) significant mineral resources. The purpose of the identification of these areas is to provide a context for land use decisions by local

[101] USDA Natural Resources Conservation Service, *Soil Survey Placer County, California, Western Part,* 1980, pp. 11 through 74.

[102] *Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance,* Placer County, July 1980, California Department of Conservation Farmland Mapping and Monitoring Program

[103] *Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance,* Placer County, July 1980, California Department of Conservation Farmland Mapping and Monitoring Program

[104] USDA Natural Resources Conservation Service, *Soil Survey Placer County, California, Western Part,* 1980, Table 9 and p.83.

governments in which mineral resource availability is one of the pertinent factors being balanced along with other considerations. Aggregate resources are classified as one of several different mineral resource zone categories (MRZ-1, MRZ-2a, MRZ-2b, MRZ-3, MRZ-3a, and MRZ-4). These classifications are generally based upon the relative knowledge about the resource's presence and the quality of the material.

The CGS has mapped mineral resources in Placer County. Of the classifications listed, only MRZ-4 occurs within the SOI Amendment Area. The MRZ-4 designation is defined as "areas of no known mineral occurrences where geologic information does not rule out either the presence or absence of significant mineral resources."[105]

No mineral extraction operations exist in the SOI Amendment Area.

4.6.3 Regulatory Setting

Regulations and standards related to geology, soils, and seismicity, as well as mineral resources, in Placer County are included in State regulations, City ordinances, and plans adopted to protect public safety and to conserve open space. The following is a brief summary of the regulatory context under which geologic and soils and hazards are managed. Agencies with responsibility for protecting people and property in the SOI Amendment Area from damage associated with soil conditions and geologic hazards are described below.

Federal

Uniform Building Code

Compliance with Chapter 16 of the UBC would reduce impacts associated with exposure of people and structures to seismic hazards and ensure development of structures on expansive soils remain less than significant by requiring that any development in the WRSP would meet specific minimum seismic safety and structural design requirements.

Compliance with Chapter 18 of the UBC would reduce impacts associated with exposure of people and structures to seismic hazards and development of structures on expansive soils by requiring that any development in the WRSP adhere to requirements for excavation of foundations and retaining walls.

[105] *Open File Report 95-10, Mineral Land Classifications of Placer County, California,* California Department of Conservation, Division of Mines and Geology, 1995, page 18.

Compliance with Appendix 33 of the UBC would reduce impacts associated with exposure of people and structures to seismic hazards and development of structures on expansive soils by requiring that any development in the WRSP adhere to regulations of grading activities.

State

Seismicity and Soils

The State of California provides minimum standards for structural design and site development through the California Building Standards Code (California Code of Regulations (CCR), Title 24). The California Building Code (CBC) is based on the Uniform Building Code (UBC), which is used widely throughout United States (generally adopted on a state-by-state or district-by-district basis) and has been modified for California conditions with numerous more detailed and/or more stringent regulations.

Chapter 18 of the UBC/CBC regulates the excavation of foundations and retaining walls, and Appendix Chapter 33 regulates grading activities, including drainage and erosion control, and construction on expansive soils. The State Earthquake Protection Law (California Health and Safety Code 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the UBC/CBC. The UBC/CBC requires a site-specific geotechnical study to address seismic issues and identifies seismic factors that must be considered in structural design. Because the SOI Amendment Area is not located within an Alquist-Priolo Earthquake Fault Zone, no associated provisions would be required for project development related to fault rupture.

Installation of underground utility lines must comply with industry standards specific to the type of utility (e.g., National Clay Pipe Institute for sewers and American Water Works Association for water lines). These standards contain specifications for installation and design to reflect site-specific geologic and soils conditions.

Other State regulations pertaining to the management of erosion/sedimentation as they relate to water quality are described in Section 4.12, Hydrology and Water Quality. Such regulations include, but are not limited to, the National Pollutant Discharge Elimination System (NPDES) program for management of construction and municipal stormwater runoff, which is part of the federal Clean Water Act and is implemented at the State and local level through issuance of permits and preparation of site-specific pollution protection plans. While the primary purpose of these regulations and standards is the protection of surface water resources from the effects of land development, measures included within such regulations and standards also help to minimize the potential for erosion due to soil loss.

Streambed Alteration

Sections 1600 through 1607 of the California Department of Fish and Game Code regulate activities that would alter stream characteristics, including erosion. Under Sections 1600-1607 of the California Fish and Game Code, the California Department of Fish and Game (CDFG) regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFG jurisdiction are defined in the code as the "bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit...". A Streambed Alteration Agreement would identify the specific controls that would be implemented.

Local

City of Roseville

The following Uniform Codes have been adopted in the Roseville Zoning Ordinance (Chapter 16) to ensure that buildings are designed and sited properly to protect against seismic and unstable soils conditions: Uniform Building Code (1998), Uniform Plumbing Code (1998), Uniform Housing Code (1998), and the Uniform Mechanical Code (1998).

The City of Roseville Planning and Public Works Departments maintain policies and guidelines regarding grading, erosion control, inspection and permitting. Section 16.20.040 of the Roseville Zoning Ordinance regulates stockpiling and grading and addresses conditions under which permits and grading plans are required. Section 16.20.070 identifies grading plan performance standards. Section 16.20.020 requires that all grading be performed in accordance with either City of Roseville Improvement Standards or Chapter 16 of the Zoning Ordinance, whichever is more restrictive.

Implementation of Section 11 of the City of Roseville Improvement Standards would ensure that exposure of people and structures to seismic hazards, development of structures on expansive soils, topographic changes and soil erosion due to grading, and slope instability and increased erosion along stream channels due to grading would be less than significant by requiring the development of a Grading Plan to include a description of the site, an erosion and sedimentation control plan, and mitigation monitoring requirements.

The City of Roseville requires the preparation of site-specific geotechnical studies as part of the building permit process.[106] The technical information that must be compiled for these studies, which address both seismic hazards and soil conditions, is specified in Chapters 16 and 18 of the UBC. Implementation of the

recommendations within the site-specific geotechnical evaluation would ensure that impacts associated with exposure of people and structures to seismic hazards, development of structures on expansive soils, grading activities increasing slope instability and increased erosion along stream channels, and soil erosion from grading would remain less than significant by providing grading and design recommendations to address potential slope and foundation instability, stream bank protection and slope evaluation, expansive soils, and differential settlement.

Site-Specific Geotechnical Investigation

Prior to the commencement of any earthwork in the City of Roseville (which would include development in the SOI Amendment Area, if annexed), a full-scale geotechnical investigation must be completed. The geotechnical investigation must include soil borings to collect samples and laboratory testing to determine the appropriate design parameters for use in determination of the structural fill, roadbed fill, and landscaping fill requirements, along with the fill placement requirements. The various soils may be tested for corrosivity, to allow for proper infrastructure and foundation design. The Roseville Improvement Standards (Section 2) identifies specific requirements for the soils report.

The geotechnical evaluation must also provide grading and design recommendations to address potential slope and foundation instability, stream bank protection and slope evaluation, expansive soils, and differential settlement. The report must evaluate the soil types to test for shrink-swell potential to determine load-bearing and strength concerns. The geotechnical evaluation would be provided to the City as part of the City's building permit process. The City would review the geotechnical report along with project design to confirm that the recommendations in the geotechnical report are reflected in project design.

Design of engineered fills requires that the geotechnical investigation assess the structural properties of each of the different soils types throughout the SOI Amendment Area. Such an investigation would address specific areas of the SOI Amendment Area to be developed in order to account for the various structures and roadways proposed for that particular area. In addition to evaluation for engineered fills, specific geotechnical evaluation of engineered slopes must be included in the geotechnical evaluation. All proposed cut and/or fill slopes must be evaluated for proper design in order to reduce the hazard of over-steepening and/or removing of their lateral support, both of which could lead to slope instability, structural failure, and landsliding. If necessary, slopes must be designed with additional lateral support, such as buttressing, and fill slopes must be properly keyed into competent formational materials. Slopes (banks) along the creek channels must be designed with proper slope protection to prevent soil erosion

[106] Rob Jensen, City of Roseville Engineering Department, personal communication, August 22, 2002.

and channel-bank undercutting. Grading and fill placement must be monitored and compaction testing should be performed to ensure proper placement of all fill types (structural, non-structural, and roadbed). In addition to the measures mentioned above, soils must be tested for their shrink-swell potential. Soils with low strength and/or high shrink-swell potential must be controlled by over-excavation, or covering with a sufficient amount of granular soils (as determined by the geotechnical investigation). Potentially expansive soils must only be placed in areas determined not to consist of structural fill.

The City of Roseville Department of Public Works Improvements Standards (Sections 2 and 11) identify requirements for grading plans. A grading permit must be obtained prior to grading activities. The Applicant must submit, for review and approval, Improvement and/or Grading Plans along with a site-specific erosion and sedimentation control plan.

Permits that are related to geology and soils that would be required for the WRSP and prior to development elsewhere in the SOI Amendment Area include:

- Major Grading Plan from the City of Roseville Public Works Department, which would subsequently need to be approved by the Roseville Planning Commission. This permit is applicable due to the size and scope of the WRSP, as well as specific plans that might be proposed for the Remainder Area. The major grading permit would minimize the topsoil's loss and degradation by evaluating: rough grading and stockpiling of material on site; the potential to degrade important natural features (e.g., an acre of wetlands, removal or damage to native oak trees, grading on slopes of more than 20 percent); and excavation or fill within any channel or tributary that would convey stormwater with a flow of 200 cubic feet per second (cfs) or more for a 10 year event.[107]
- Construction permits from the City of Roseville Building Department. These permits would ensure that individual projects within the WRSP, or the Remainder Area if annexed and developed, follow the City's adopted ordinances that pertain to construction-related activities.
- Drilling permits for geotechnical borings or piling borings from the County Department of Environmental Health.
- Streambed Alteration Agreement from the CDFG (see above)

In addition, it may be necessary to obtain easements for control structures and any associated piping and/or utilities.

[107] *City of Roseville Grading Ordinance - Section 16.20,* accessed on the following website; http://bpc.iserver.net/codes/rosevill/index.htm, 6/03/02.

4.6.4 Impacts and Mitigation Measures

Methods of Analysis

The CGS fault activity map was reviewed to identify potential faults and seismic hazards in the SOI Amendment Area and from a regional perspective.

The NRCS Soil Survey for Placer County was reviewed to identify soil constraints present in the SOI Amendment Area. Soil constraints identified included high shrink-swell potential, low permeability, shallow depth to rock, and unstable slopes along drainages and creeks. Mineral resource classification studies developed by the CGS were reviewed to determine whether project development could occur over important mineral resources.

For a discussion of cumulative impacts on Soils, Geology and Seismicity, please see Chapter 5, CEQA Considerations.

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area could:

- Expose people or structures to substantial risk of loss, injury or death due to major geologic hazards, such as rupture of a known earthquake fault, as defined on the most recent Alquist-Priolo Earthquake Fault Zoning Act Map, seismic groundshaking, liquefaction, slope failure, or landslides;
- Place structures on soils that are likely to collapse or subside, or be located on expansive soils (defined in Table 18-01-B of the UBC) that could damage foundations or structures; or
- Substantially increase erosion or loss of topsoil due to site disturbance.

Impacts

IMPACT 4.6-1:	EXPOSURE OF PEOPLE AND STRUCTURES TO SEISMIC HAZARDS.	
Applicable Policies and Regulations:	Roseville Improvement Standards Uniform (California) Building Code	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

West Roseville Specific Plan/Remainder Area

Placer County is classified as a low severity earthquake zone, and no active faults are known to exist within the County. To reduce the risk of seismic-related safety hazards and structural damage (to pipelines, roads, and residential homes) from groundshaking to an acceptable level, the City of Roseville Conditions of Approval require that, at the time of tentative map approval, construction is in accordance with the UBC and local building standards, as administered by City of Roseville Building Department. Regular monitoring and enforcement of the UBC requirements regarding seismic and geologic safety by the City of Roseville through the building permit and plan check process would ensure that new development and construction meet all seismic and geologic safety standards, ultimately protecting the public by reducing the risk of building damage or collapse. In addition, the City of Roseville Improvement Standards require the development of a Grading Plan, an erosion and sedimentation control plan, and mitigation monitoring requirements, which would further reduce the risk of exposure of people and structures to seismic hazards. Therefore, the risk related to seismic activity in the SOI Amendment Area is considered **less than significant.**

IMPACT 4.6-2:	DEVELOPMENT OF STRUCTURES ON EXPANSIVE SOILS OR ON SOILS WITH OTHER LIMITATIONS.	
Applicable Policies and Regulations:	Roseville Improvement Standards Uniform (California) Building Code	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

Soil Constraints

West Roseville Specific Plan/Remainder Area

Based on information obtained from the NRCS, the majority of the soils in the SOI Amendment Area have high shrink-swell potential. The physical forces resulting from the shrink-swell processes of the soils can exert pressure on foundations and infrastructure lines which, in turn, could result in pipeline and foundation damage. Other soil constraints in the SOI Amendment Area include low strength, slow permeability and wetness, and shallow depth to rock. Soils exhibiting low strength can cause damage to structural foundations, and soils characterized by slow permeability can cause drainage problems. Shallow depth to rock could require special construction methods to prepare foundations.

Based on available information, the soil conditions in the SOI Amendment Area do not appear to pose any significant constraints to residential or commercial construction or infrastructure placement. These constraints described above can be overcome through the application of standard engineering practices and compliance with the UBC and City of Roseville Improvement Standards. Additionally, a site-specific geotechnical evaluation would be prepared by the developers, as required as part of the building permit process in the City of Roseville, that would identify locations where special construction and design methods would be needed and would include recommendations for alleviating constraints due to high shrink-swell potential or other soil constraints. The developer would be required to comply with the recommendations set forth in the geotechnical evaluation, per the City's building permit process. Therefore, this is considered a **less-than-significant** impact.

Topographic Changes

West Roseville Specific Plan/Remainder Area

The change in topography as a result of grading would be consistent with surrounding lands that have been graded to accommodate mixed-use development and would be performed according to a Major Grading Plan, as required by the City of Roseville Public Works Department. Therefore, this is considered a **less-than-significant** impact.

IMPACT 4.6-3:	SOIL EROSION FROM GRADING ACTIVITIES.	
Applicable Policies and Regulations:	Roseville Improvement Standards Roseville Zoning Ordinance (Section 16.20.020)	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

Erosion

Natural forces, both chemical and physical, are continually at work breaking down soils. Erosion poses two hazards: (1) it removes soils, thereby undermining roads and buildings and producing unstable slopes, and (2) it deposits eroded soil in reservoirs, lakes, drainage structures, and on roads as mudslides. Natural erosion is frequently accelerated by human activities such as site preparation for construction and alteration of topographical features. The following analysis focuses on the potential geotechnical effects of erosion related to project development. For a discussion of potential effects on water quality

due to erosion and sedimentation caused by construction activities or urban runoff, please see Section 4.12, Hydrology, Water Quality, and Groundwater.

Future development within the project area would require some grading and leveling of the site to accommodate new residences, commercial and industrial uses. Grading activities would be necessary to prepare the WRSP Area for proposed new structures and infrastructure. There would be a general leveling of the gently undulating topography that is present on the site, particularly in the vicinity of stream channels. No unique topographic features would be removed, and because they would remain in open space, the gentle slopes and associated riparian vegetation adjacent to stream channels would be unchanged. Although development would permanently alter the topography of the project area through site preparation (e.g., grading and trenching) and the construction of project features, the topography of the project area development would preclude any substantial erosion. The alteration of topographic features can lead to increased erosion by creating unstable rock or soil surfaces, by changing the permeability or runoff characteristics of the soil, or by modifying or creating new pathways for drainage. Any development within the SOI Amendment Area would be required to prepare a Major Grading Plan, which would identify how soil would be moved and stored at the site. The intent of this plan is to minimize erosion effects. Site-specific information from a geotechnical evaluation would be required to more fully identify and address other erosion hazards, if any. The Major Grading Plan and site-specific geotechnical study are required by the City of Roseville as a condition of project approval and issuance of building permits. The grading plan would outline structural and nonstructural mechanisms designed to prevent or reduce project-related erosion. These would include, but not be limited to, sediment retention basins and energy dissipators that would reduce the power of erosion runoff entering the stream channel, and retain the majority of suspended sediment. Potential impacts resulting from the WRSP and Remainder Area are discussed below.

West Roseville Specific Plan

It is anticipated that approximately 2,400 acres of the 3,162-acre[108] WRSP Area would be mass-graded to accommodate new development. However, because the WRSP area consists of gently undulating terrain, which is underlain by soils that exhibit low erosion hazard, and since there are no steep slopes that would be altered by cut-and-fill methods, it is anticipated there would be no geotechnical effects related to erosion. Implementation of the WRSP would result in the development of structures, roadways, and landscaping or revegetated areas that would eventually cover any soils exposed during construction; thus no new erodible soils created as a result of the WRSP.

[108] Kris Steward, Law Offices of George Phillips, personal communication, December 19, 2002.

Development of the WRSP would be required to prepare a Major Grading Plan as required under the Roseville Improvement Standards Section 16.20.020 of the Roseville Zoning Ordinance, as well as provide site-specific information from a geotechnical evaluation to more fully identify and address other erosion hazards, if any. With implementation of these requirements, this is considered a **less-than-significant** impact.

Remainder Area

Because the topography of the Remainder Area is relatively flat, potential erosion effects would be less severe than those described for the WRSP. Further, as discussed above, implementation of required geotechnical studies and Major Grading Plan that are required under the City's project approval and building permit process would reduce erosion impacts to a **less-than-significant** level.

IMPACT 4.6-4:	SLOPE INSTABILITY AND INCREASED EROSION ALONG STREAM CHANNELS.	
Applicable Policies and Regulations:	Roseville Improvement Standards Streambed Alteration Agreement (Fish and Game Code Section 1600 through 1607)	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

The site topography of the project area consists of gently rolling and undulating ground surface with steep banks along Pleasant Grove Creek and Kaseberg Creek. No development is proposed within the banks of any creek channels or in any areas where there are steep slopes. In addition, the natural topography of the areas adjacent to the steam channel, and the associated riparian vegetation will be preserved. This would help retain any loose sediment, and would reduce or prevent erosion that would be associated with development of upland areas that are adjacent to stream channels. As discussed on previous pages, development within the SOI Amendment Area must comply with the City of Roseville Improvement Standards and prepare a site-specific geotechnical report, as well as a site-specific erosion and sedimentation control plan in order to receive a grading permit. The erosions and sedimentation control plan would identify both structural and non-structural mechanisms to protect stream areas from erosion (e.g., energy dissipators). In addition, any development that could affect streambeds must include measures to protect channels that would be identified in a CDFG Streambed Alteration Agreement under Section 1600 of the Fish and Game Code. Specific impacts for each area are discussed below.

West Roseville Specific Plan

The soils located in the WRSP Area are predominantly characterized as having a slight erosion potential; however, the frequently flooded xerofluvents located immediately adjacent to the stream channels can be moderately to highly erosive. Although areas along the channels would remain as open space, earthwork, particularly along the stream channels to accommodate roadway crossings, could result in unstable slopes that could erode. This earthwork could affect the geomorphology of the creek by altering flow patterns or sediment transport.

As discussed above, development of the WRSP must comply with the City of Roseville Improvement Standards and would be required to prepare a site-specific geotechnical report, as well as a site-specific erosion and sedimentation control plan. In addition, Sections 1600 through 1607 of the CDFG Code would regulate activities that would alter stream characteristics, including erosion. Compliance with these requirements and implementation of recommendations outlined in the plans would reduce any impacts associated with slope instability to a **less-than-significant** level.

Remainder Area

The western segment of Pleasant Grove Creek that crosses the northern portion of the Remainder Area is characterized by steep banks. Although no development is currently proposed in the Remainder Area, future development at levels similar to those proposed in the WRSP could result in areas of slope instability along the creek. In addition, if the northern portion of the Remainder Area along Pleasant Grove Creek were developed at levels similar to those proposed in the WRSP, additional grading activities would occur that could lead to soil erosion along the stream channel. Upon annexation, any development in the Remainder Area would be subject to the same performance standards and regulations as the WRSP. These standards and regulations would address potential impacts due to soil instability and erosion within the Remainder Area, and impacts associated with them would be **less than significant**.

IMPACT 4.6-5:	LOSS OF TOPSOIL DUE TO CONVERSION OF AGRICULTURAL LAND TO URBAN USES.	
Applicable Policies and Regulations:	None Applicable	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

Loss of Topsoil

Development of the project area would result in the conversion of approximately 5,400 acres of agricultural land currently used for grazing activities. A majority of the SOI Amendment Area is characterized as having soils considering by the NRCS as "fair." Topsoil rated "good" is present in areas adjacent to streams and is not very prevalent within the project area, with the exception of a small portion of the WRSP area that is classified Prime Farmland (shown on Figure 4.1-5 [Farmland Classification] in Section 4.1 [Land Use and Agricultural Resources]). Areas along stream channels, which generally contain higher quality topsoil, would remain in open space and would not be substantially disturbed by project development, so there would be no loss of higher quality topsoil. Specific impacts for each Area are discussed below.

West Roseville Specific Plan

The WRSP Area is undeveloped and contains annual grasslands, which are used for seasonal livestock grazing. Topsoil characterized as "good" by the NRCS is generally present only adjacent to stream channels and is not abundant in the WRSP Area. A portion (less than 0.05 percent) of the WRSP Area is designated Prime Farmland (40.2 acres) by the State Department of Conservation. A portion of the Prime Farmland will be developed (19.8 acres) while the remaining 20.4 acres will be preserved within an Open Space Preserve. A two-acre portion of the land within the Open Space Preserve will be used as a Community Garden. Remaining soils in the WRSP Area are characterized as "fair." As discussed above, areas along stream channels would not be substantially disturbed by project development, so there would be no loss of higher quality topsoil beyond the 20.4 acres of Prime Farmland that would be developed. Therefore, this impact is considered **less than significant.** For a discussion of the impact on agricultural productivity please see Section 4.1, Land Use and Agricultural Resources.

Remainder Area

If the Remainder Area was developed at levels similar to those proposed in the WRSP, additional changes to topsoil would occur. The physical characteristics and land use of the Remainder Area are similar to the WRSP. Most of the Remainder Area contains soils rated as "fair" for topsoil, and there is no Prime Farmland within the Remainder Area. The loss of these soils as a result of project development would be considered **less than significant.**

Mitigation Measures

No mitigation measures are required.

4.7 BIOLOGICAL RESOURCES

4.7.1 Introduction

This section addresses the effects that the proposed project could have on vegetation, wildlife, and wetland resources in the region. The analysis in this section is based upon the following documents and studies:

- A species list from the U. S. Fish and Wildlife Service (USFWS) in a letter dated June 12, 2002 (file number 1-1-02-SP-2224)
- Results of Surveys for Special-status Species in the Fiddyment/Placer 1600 Project Area by Miriam Green Associates, (July 18, 2000)
- Westpark/Fiddyment Ranch "Waters of the U.S. Acreage" tables, ECORP Consulting, (January 28, 2003)
- *Jurisdictional Delineation for the Placer 1600 Property* by Gibson & Skordal Wetland Consultants, (September 1998, Revised November 1998)
- California Natural Diversity Database (CNDD), (July 2002)
- California Native Plant Society (CNPS) Electronic Inventory
- Hickman, J.E. (ed). *The Jepson Manual*. University of California Press, Berkeley
- Sugnet & Associates, *Roseville West Specific Plan Area, Biotic Resources, Existing Conditions*, City of Roseville, California, (July 21, 1994)
- Placer County Planning Department. *Placer Legacy Open Space and Agricultural Conservation Program*. (June 20, 2000)
- ECORP Consulting Inc., Westpark/Fiddyment Ranch "Wetland Mitigation (Revised)" table, (January 28, 2003)
- ECORP Consulting Inc., Westpark/Fiddyment Ranch "Initial Biological Assessment of Off-site improvements: Blue Oaks Boulevard East of Fiddyment Ranch Road" (August 22, 2003)
- ECORP Consulting Inc., Westpark/Fiddyment Ranch "Initial Biological Assessment of Off-site improvements: Blue Oaks Boulevard and Phillip Road (Revised)" (August 22, 2003)
- ECORP Consulting Inc., Westpark/Fiddyment Ranch "Initial Biological Assessment of Off-site improvements: Pleasant Grove Boulevard Widening" (August 22, 2003)
- ECORP Consulting Inc., Westpark/Fiddyment Ranch "Initial Biological Assessment of Off-site improvements: Blue Oaks Boulevard West of Fiddyment Ranch Road" (August 22, 2003)
- ECORP Consulting Inc., Westpark/Fiddyment Ranch "Aerial Interpretation of Potential Wetlands Along the Proposed Powerline Easement" (August 22, 2003)

- ECORP Consulting Inc., Westpark/Fiddyment Ranch "Initial Biological Assessment of Off-site improvements: Proposed West Roseville Recycled Water Storage Tanks" (September 2, 2003)
- Jones & Stokes Associates *Wet-Season Surveys for Freshwater Invertebrates and Spring Surveys for Rare Plants for the Placer County Habitat Conservation Plan*, (July 2002)
- URS, April 2002 Rare Plant Survey, *West Roseville Specific Plan* (June 25, 2002)
- ECORP Consulting Inc., *West Roseville Specific Plan—Swainson's Hawk Migration*, Memorandum February 3, 2003
- URS, *Lichen and Bryophyte Surveys, West Roseville Specific Plan*, (June 25, 2002)

All of these documents are available for review at the City of Roseville Permit Center, 311 Vernon Street, Roseville, California. Additionally, a reconnaissance level visit to the site was conducted on May 15, 2002, to determine the habitat types that are present within the SOI Amendment Area. Using the information gathered during the site visit, the list of species that was derived from the background research was analyzed to determine which of those species were likely to occur within the SOI Amendment Area.

Comment letters were received in response to the Notice of Preparation (refer to Appendix B) for this project from the USFWS and the Sierra Club (letter dated September 16, 2002). The letters raised concerns regarding the loss of wetlands and the resulting impacts on federally listed vernal pool crustaceans that are dependant on those resources, fragmentation of existing wildlife habitat, and degradation of the quality and value of habitat that remains in the open space areas proposed by this project. These issues are addressed in this section of the EIR.

As discussed in Chapter 1 (Introduction), this EIR evaluates the impacts of the WRSP, which would include a Sphere of Influence Amendment and annexation to the City, at a project-specific level. Because a Sphere Amendment is the only action proposed for the Remainder Area (that portion of the SOI Amendment Area outside the WRSP Area), a program-level analysis is provided for the full SOI Amendment. In order to conduct the analysis, development assumptions are made for the Remainder Area (refer to Chapter 2, Project Description, for details). Figure 1-1 (SOI Amendment Area) in Chapter 1 (Introduction) identifies the boundaries of the SOI Amendment Area, WRSP Area, and Remainder Area.

As discussed in Chapter 4 (Environmental Analysis), minor changes have been made to the proposed land uses for the WRSP since publication of the NOP. Overall, the total amount of open space increased by 34.9 acres, primarily along the western boundary of the WRSP Area. The WRSP includes a total of 684.6 acres of open space compared to 649.7 acres discussed in the NOP. As a result, there would be a

reduction in the amount of habitat lost to development. The open space corridors along Pleasant Grove Creek and Curry Creek have not changed.

4.7.2 Environmental Setting

The SOI Amendment Area encompasses approximately 5,527 acres in western Placer County, adjacent to the western boundary of the City of Roseville. The 3,162-acre WRSP portion has been the subject of biological surveys, and is known to consist of a combination of annual grassland, oak woodland, and agricultural land. Figure 4.7-1 (WRSP Habitat Map and Site Features) illustrates the habitat types located on the project site. Federal jurisdictional waters in the WRSP Area include Pleasant Grove Creek, Kaseberg Creek, and their unnamed tributaries; vernal pools; seasonal wetlands; wet swales and emergent marsh habitat. Figure 4.7-2 (On-Site Wetland Mitigation Plan) illustrates the existing wetlands located within the project site. The Remainder Area includes an additional 2,365 acres. Although the Remainder Area has not been surveyed for biological resources, a review of aerial photographs and site reconnaissance indicate that it consists primarily of annual grasslands, ephemeral drainages, and seasonal wetlands.

Terrestrial Habitats

Annual Grassland

Annual grassland habitats generally occupy what was once native grassland consisting primarily of perennial bunch grasses. Today, annual grasslands are composed largely of nonnative annual grasses and forbs, which out-compete and effectively prevent the reestablishment of native perennial grasses. Additionally, this community composes the herbaceous understory of the adjacent woodland habitats. There are approximately 4,500 acres of annual grasslands in the SOI Amendment Area, including 2,200 acres in the WRSP site and approximately 2,300 acres in the Remainder Area. Annual grassland is the most common habitat type in the SOI Amendment Area. This habitat occurs throughout these areas either as a distinct vegetation community, or as an understory to the oak and riparian woodlands. Annual grasslands are absent only from the portions of the project site that are either in agriculture or other development.

Annual grassland species that occur in these areas include ripgut brome (*Bromus diandrus*), soft chess (*Bromus mollis*), wild oat (*Avena fatua*), and Mediterranean barley (*Hordeum hystrix*). Common forbs found growing in the annual grassland were cranesbill (*Geranium dissectum*), hairgrass (*Aira caryophylla*), medusahead grass (*Taeniatherum caput-medusae*), red stem filaree (*Erodium botrys*), clover (*Trifolium* spp.), and bur clover (*Medicago polymorpha*). Other common species include fiddle-neck (*Amsinckia menziesii*),

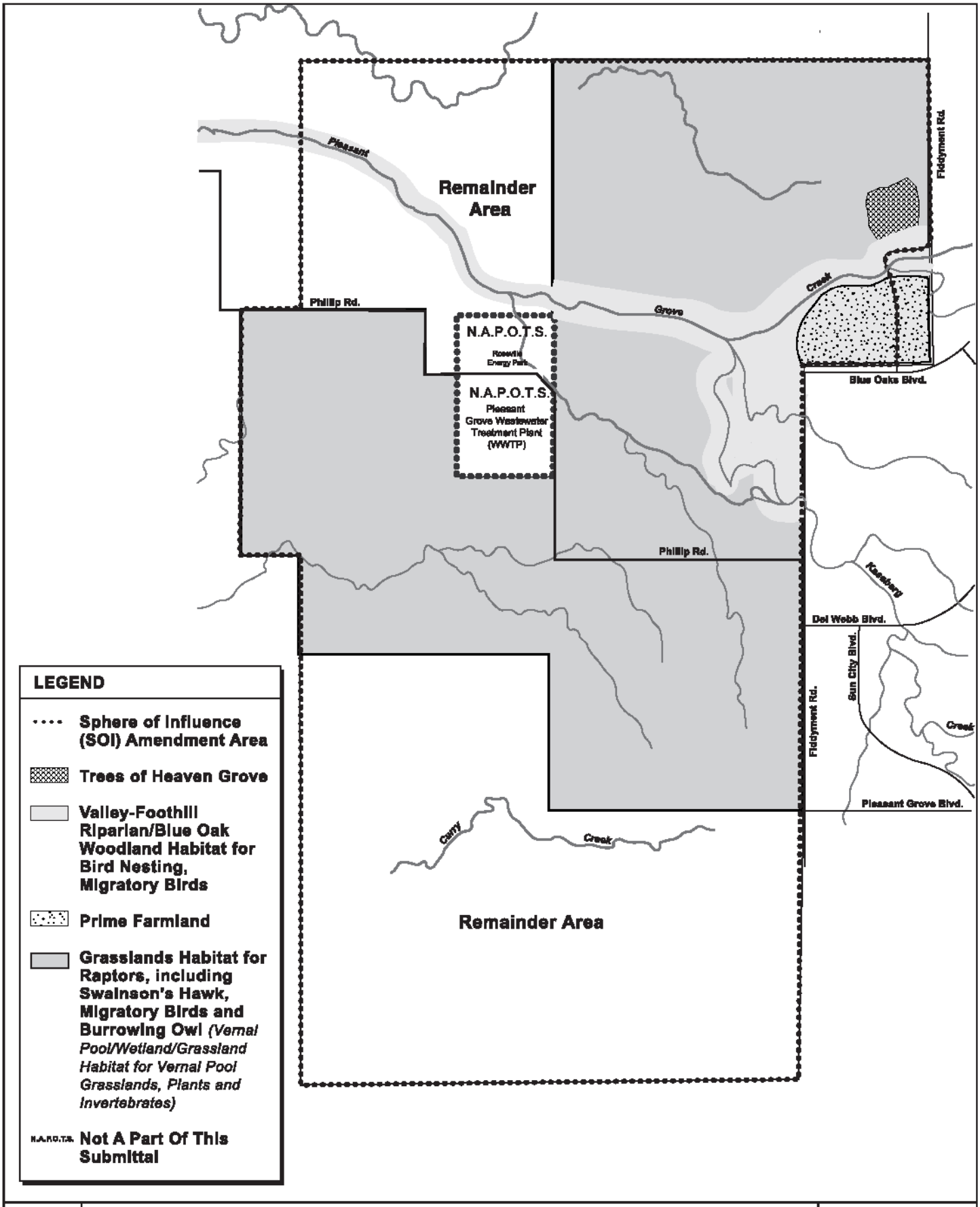


FIGURE **4.7-1**

WRSP Site Features and Habitat Map

Not to Scale

10659-00

Source: EIP Associates, 2003; Miriam Green Associates, 2000

City of Roseville

EIP ASSOCIATES

Figure 4.7-2 On-Site Wetland Mitigation Plan

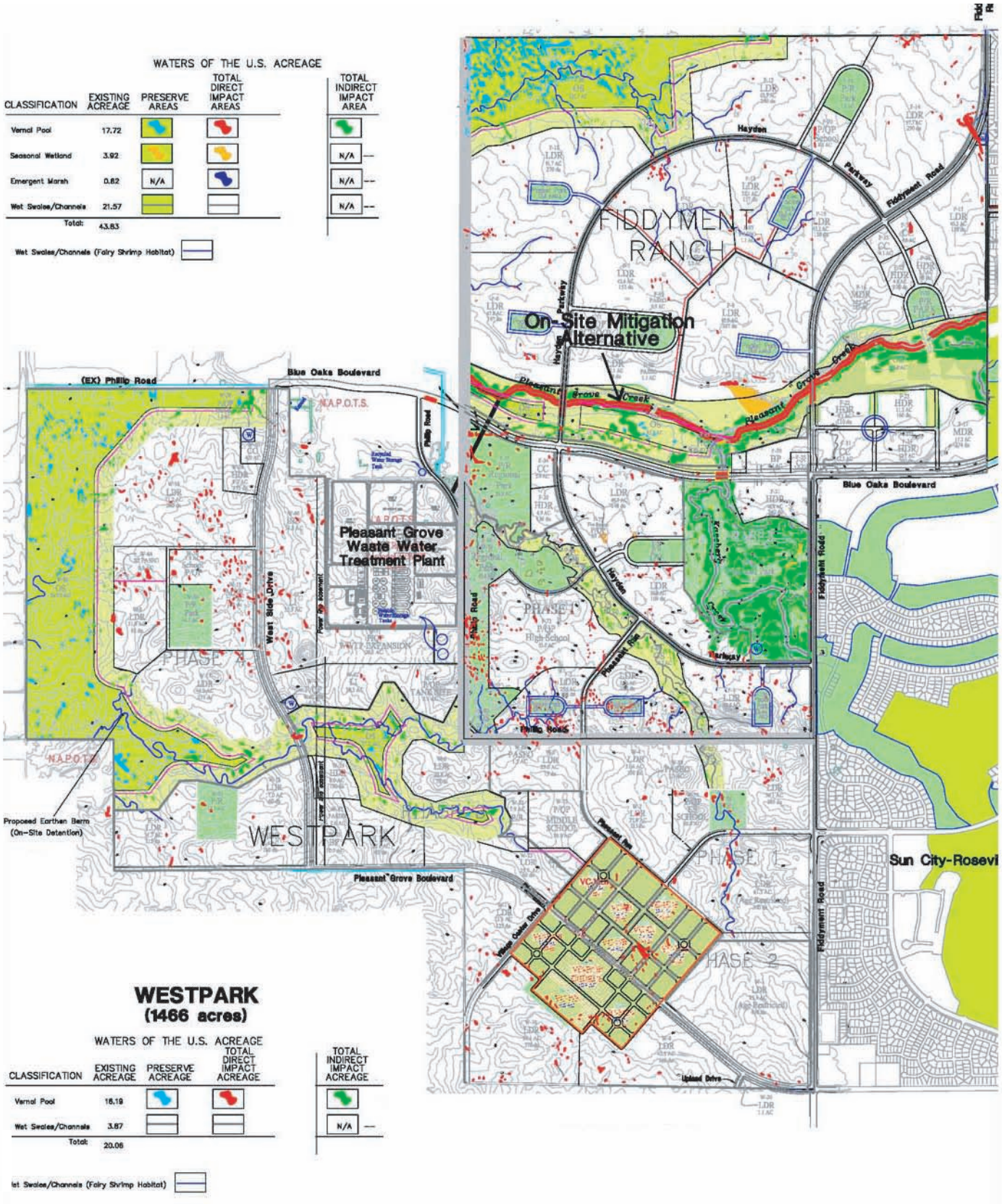


FIGURE **4.7-2**

On-Site Wetland Mitigation Plan

Scale: 1" = 2100'

10659-00

Source: ECORP Consulting, Inc., 2003

City of Roseville

EIP ASSOCIATES

blue dicks (*Dichelostemma capitatum*), spikeweed (*Hemizonia fitchii*), and vinegar weed (*Trichostema lanceolatum*).

Annual grasslands are important habitats to a variety of small rodents such as deer mice (*Peromyscus maniculatus*) and California vole (*Microtis californicus*) that feed on the abundance of grass seeds that this habitat provides. Other small mammals that use this habitat include species such as cottontail (*Sylvilagus audubonii*), blacktail hare (*Lepus californicus*), and California ground squirrel (*Spermophilus beecheyi*). These small mammals provide food for a variety of predators including mammals such as coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), bobcat (*Lynx rufus*) and birds such as red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), barn owl (*Tyto alba*), American crow (*Corvus brachyrhyncos*), and loggerhead shrike (*Lanius ludovicianus*). Other bird species that may occur in this habitat include prairie falcon (*Falco mexicanus*), meadowlark (*Sturnella neglecta*), scrub jay (*Aphelocoma coerulescens*), and western bluebird (*Sialia mexicana*). Reptile species that frequently occur in annual grasslands include northern Pacific rattlesnake (*Crotalus viridis oreganus*), Pacific gopher snake (*Pituophis melanoleucus catenifer*), California kingsnake (*Lampropeltis getulus californiae*), garter snakes (*Thamnophis* spp.), western fence lizards (*Sceloporus occidentalis*), southern alligator lizards (*Gerrhonotus multicarinatus*), and Gilbert's skink (*Eumeces gilberti*). Grasslands that are adjacent to wetlands or other sources of moisture will also support Pacific tree frog (*Hyla regilla*) and western toad (*Bufo boreas*).

Blue Oak Woodland

Blue oak woodland is usually associated with shallow, rocky, infertile, and well-drained soils from a variety of parent materials. There are approximately 80 acres of blue oak woodland in the WRSP Area. This habitat occurs primarily in the vicinity of the confluence of Pleasant Grove Creek and Kaseberg Creek in the Fiddyment Ranch portion of the WRSP Area. The largest concentration of this community is located in the central eastern portion of the Fiddyment Property, north of the existing Phillip Road. The Remainder Area does not appear to support blue oak woodlands.

Blue oaks (*Quercus douglasii*) are well adapted to dry, hilly terrain where the water table is usually deep or unavailable. Dominant canopy species in this habitat are blue oak, but also may include small amounts of interior live oak (*Quercus wislizenii*), and some valley oak (*Quercus lobata*). Associated shrub species commonly include California buckeye (*Aesculus californica*), buckbrush (*Ceanothus cuneatus*), poison oak (*Toxicodendron diversilobum*), and toyon (*Heteromeles arbutifolia*). The understory typically consists of an herbaceous ground cover of mixed annual grasses and forbs.

Oak and riparian woodlands are an important habitat for a wide variety of wildlife species as they provide food (e.g., acorns, wild grapes), shelter, and nesting opportunities. Bird species that are typically found in this habitat include Acorn woodpecker (*Melanerpes formicivorous*), Nuttall's woodpecker (*Picoides nuttallii*), northern flicker (*Colaptes auratus*), white breasted nuthatch (*Sitta carolinensis*) and house wren (*Troglodytes aedon*). Other bird species that could be expected to occur in woodland communities include sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*Accipiter cooperii*), red-tailed hawk, and great horned owl (*Bubo virginianus*). Common mammals that inhabit this community include bobcat, coyote, gray fox, and striped skunk (*Mephitis mephitis*). Additionally, western gray squirrel (*Sciurus griseus*), deer mice, dusky woodrat (*Neotoma fucipes*), and mule deer (*Odocoileus hemionus*) are common in these habitats.

Valley-Foothill Riparian

Under natural conditions, riparian zones extend along creeks, streams, and rivers, providing a network of vegetation vital to the terrestrial and aquatic ecosystems of the surrounding area. Riparian zones function in a variety of ways that are beneficial to the surrounding environment. They provide habitat for special-status plant and wildlife species, act as a buffer for its associated waterway, improve the biological diversity of surrounding areas, and act as corridors and pathways for movement between areas. The riparian zone traps and filters sediments, nutrients, and chemicals from surface runoff and shallow groundwater before these pollutants can enter streams. A framework of tree roots stabilizes the streambank by reducing bank erosion and by slowing stream meandering. Trees and shrubs associated with riparian habitat provide shade that cools the water, moderates temperature fluctuation, and increases the water's ability to hold oxygen and support life. Plant stems slow water velocity and root systems keep the soil porous, so excess water is absorbed into the ground and flooding potential is reduced. The buffer's capacity to hold large amounts of water allows percolation to deeper water aquifers, replenishing groundwater supplies.

The vegetation of the valley-foothill riparian habitat is variable and often structurally diverse. Valley-foothill riparian habitats are found in valleys bordered by sloping alluvial fans and lower foothills. They are generally associated with low-velocity flowing creeks, floodplains, and gentle topography. There are approximately 80 acres of riparian woodland in the WRSP Area. This habitat occurs along Pleasant Grove Creek, Kaseberg Creek, and some of their unnamed tributaries. This habitat integrates into the blue oak woodlands that are located in the uplands adjacent to the creek channels.

Characteristic species on the project site include valley oak, Fremont cottonwood (*Populus fremontii*), white alder (*Alnus rhombifolia*), red willow (*Salix laevigata*), and Oregon ash (*Fraxinus latifolia*). Typical

understory includes California buckeye, blackberry (*Rubus* sp.), and poison oak. The herbaceous layer includes sedges (*Cyperus* spp.), rushes (*Juncus* spp.), spike rushes (*Eleocharis* spp.), and grasses.

Bird species that are characteristic of this habitat include California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*), Nuttall's woodpecker (*Picoides nuttallii*), black phoebe (*Sayornis nigricans*), western wood-pewee (*Contopus sordidulus*), California towhee (*Pipilo crissalis*), and song sparrow (*Melospiza melodia*). A number of these species nest or roost in riparian woodland and feed in adjacent habitat types, such as annual grassland and agricultural fields. Riparian woodlands also provide important feeding, resting, and nesting habitat for neotropical migrant songbirds such as warblers, vireos, grosbeaks, and flycatchers.

Mammals found within riparian woodland habitat could include opossum (*Didelphis virginianus*), raccoon, deer mouse, broad-footed mole (*Scapanus latimanus*), striped skunk, coyote, and gray fox. Due to the presence of agricultural operations adjacent to this habitat, domestic mammals such as cows and other farm animals are also periodically present in this habitat. Amphibians and reptiles that are likely to occur in this community include western toad (*Bufo boreas*), Pacific tree frog, common king snake (*Lampropeltis getulus californiae*), valley garter snake (*Thamnophis sirtalis fitchii*), and Gilbert's skink (*Eumeces gilberti*). Riparian woodlands also provide nesting and foraging habitat for a variety of special-status wildlife species including Cooper's hawk, yellow warbler, white-tailed kite, and yellow-breasted chat.

Trees-of-Heaven Grove

One area within the SOI Amendment Area includes a large grove of Tree-of-Heaven trees (*Ailanthus altissima*). Tree-of-Heaven is native to central China but is widely distributed across the United States. It is common in disturbed areas, where it is known as an invasive species.

Although the grove provides some cover and habitat for wildlife, the trees are currently listed as a noxious invasive species by the state. Removal of these trees would prevent the further spread of these highly invasive plants.

Wetlands

Wetland delineations were conducted according to the standards of the U.S. Army Corps of Engineering Manual (Corps 1987) for the entire WRSP Area during 1998 (Fiddyment Property) and 1999 (Westpark Property). The delineation for the Fiddyment Property was verified by the Corps on November 19, 1998 (Corps file #99800628), and the delineation for the Westpark Property was verified on April 7, 1999 (Corps file #199900202). Existing wetlands are illustrated by Figure 4.7-2 and summarized in Table 4.7-1.

Table 4.7-1 Area of Jurisdictional Waters Within the WRSP Area

Type of Waters	Area (Acres)
Vernal Pools	33.91
Vernal Swales	8.05
Seasonal Wetlands	3.92
Emergent Marsh	0.62
Wet Swale	17.39
Total	***63.89***

SOURCES: Jurisdictional Delineation—Fiddyment Property, Placer County, California, Gibson & Skordal, September 1998, revised November 1998; Jurisdictional Delineation—Placer 1600 Property, Placer County, California, Gibson & Skordal wetlands consultants, January 1999, revised March 1999

To date, no wetland delineations have been conducted for the Remainder Area or the off-site improvement areas. However, as these areas are similar to the WRSP Area, it is expected that seasonal wetlands, including vernal pools, swales and ephemeral drainages are present in this area as well. Because no wetland delineations have been prepared for either of these areas it is difficult to assess accurately the acreage of wetlands and other "waters" of the U.S. Based on a review of the aerial maps, approximately 50 acres of wetlands are assumed to be present in the Remainder Area, and approximately 5.82 acres of wetlands and 4.5 acres of ephemeral drainages are within the areas proposed for off-site improvements.[109]

Ephemeral Creeks

The SOI Amendment Area is crossed by Pleasant Grove Creek and Kaseberg Creek, which originate to the east and southeast of the WRSP Area, respectively, and eventually join the Sacramento River northwest of the City of Sacramento. Curry Creek, another ephemeral drainage, passes in an east/west direction across the southern border of the Remainder Area. Historically, these creeks flowed with winter rainfall and were probably dry or nearly so during the summer. With additional runoff from urban and industrial sources, the creeks have a tendency to be more perennial (i.e., year round), but can occasionally be dry or run below the surface. They frequently exist as a series of small pools intermittently connected by small flowing channels. The acreage of creeks in the Remainder Area has not been determined.

The creeks are not known to contain anadromous fishes, but support mosquitofish, and potentially some warm water fish species. Mallards *(Anas platyrhynchos)*, wood duck *(Aix sponsa)*, great egret *(Casmerodius albus)*, great blue heron *(Ardea herodias)*, and belted kingfisher *(Ceryle alcyon)* use these areas to feed on

[109] ECORP Consulting Inc., Westpark/Fiddyment Ranch "Initial Biological Assessment of Off-site improvements, August 22, 2003

algae, crayfish, pacific treefrogs (*Hyla regilla*), western toad (*Bufo boreas*), and bullfrogs (*Rana catesbeiana*). Mammals such as raccoon (*Procyon lotor*) and striped skunk are also likely to forage there.

In addition to Pleasant Grove Creek, Kaseberg Creek, and Curry Creek, there are small swales and drainages throughout the Remainder Area that could carry water briefly during winter rainfall. These areas are not creeks per se, but soils beneath them could be saturated for a longer period than adjacent upland areas, and thus support a wetland floral community. They are distinct from vernal pools, but fall within the Corps definition of jurisdictional waters of the U.S. Wildlife use of these areas is similar to those of annual grassland. There are a total of 17.39 acres of wet swales and ephemeral creeks on the WRSP site. The Remainder Area could also contain wetland swales (Table 4.7-1).[110]

Vernal Pools and Seasonal Wetlands

Vernal pools are ephemeral wetlands that form in shallow depressions underlain by a substrate near the surface that restricts the percolation of water. These depressions fill with rainwater during the fall and winter and can remain inundated until spring or early summer, sometimes filling and emptying numerous times during the rainy season. A flowering community dominated by characteristic wetland plants differentiates vernal pools from other seasonal wetlands. There are a total of 33.91 acres of vernal pools and vernal swales within the WRSP Area. There are likely vernal pools in the Remainder Area as well.[111]

Vernal pool species that are likely to occur within the project site include winged water-starwort (*Callitriche marginata*), annual hairgrass (*Deschampsia danthonioides*), horned downingia (*Downingia ornatissima*), coyote thistle (*Eryngium vaseyi*), bractless hedge-hyssop (*Gratiola ebracteata*), slender popcorn flower (*Plagiobothrys stipitatus*), spine-fruit butter-cup (*Ranunculus bonariensis*), and purslane speedwell (*Veronica peregrina*).

Seasonal wetlands are distinguished from vernal pools in that they contain a greater abundance of facultative and grassy species, and may not be inundated for as long as vernal pools. The distinction between the two types is often unclear; the final determination of the type of wetland can often be dependent upon the verification of the Corps. The extent to which special-status plant and animal species

[110] Jurisdictional Delineation for the Placer 1600 Property by Gibson & Skordal Wetland Consultants, January 1999, revised March 1999. Jurisdictional Delineation for the Fiddyment Property by Gibson & Skordal Wetland Consultants, September 1998, Revised November 1998.

[111] Westpark/Fiddyment Ranch "Waters of the U.S. Acreage" tables, January 28, 2003, ECORP Consulting

can use these habitats is variable, but, conservatively, any species present in vernal pools could be present in seasonal wetlands. There are a total of 3.92 acres[112] of seasonal wetlands in the WRSP Area.

In August 2003 the U.S. Fish and Wildlife Service formally designated approximately 740,000 acres in thirty California counties and one Oregon County as critical habitat for fifteen wetland animals and plants listed as threatened or endangered under the Federal Endangered Species Act.

The final designation represents a reduction in acreage from the approximately 1.7 million acres the Service proposed as critical habitat in September 2002. About 16 percent of the approximately 740,000 acres designated is in public ownership or is owned or administered by private conservation groups. The remainder is in private ownership. The proposed critical habitat is located in thirty (primarily Central Valley) counties in California (including western Placer County) and one County in southern Oregon.

Special-Status Species

For the purposes of this section, special-status species include those plant or wildlife species that are listed as rare, threatened, or endangered by the California Department of Fish and Game (CDFG) or the USFWS; most species that are candidates for either state or federal listing; species designated as "fully protected" or "species of special concern" by CDFG; and some other species that are tracked by the California Natural Diversity Data Base or California Native Plant Society, but do not fall into any of the categories cited above. Although only species that are listed as threatened or endangered require mitigation under the State and Federal Endangered Species Acts, it is generally considered prudent, particularly for projects with a long timeline, to address impacts to these other species as they may become listed within the lifetime of the project. Table 4.7-2 lists special-status plant and wildlife species that either have habitat within the SOI Amendment Area, or are known to occur in the vicinity.

Special-Status Plants

Special-status plant surveys of the WRSP Area were initially conducted by biologists at Miriam Green Associates during the months of April, May, and June of 2000. A total of nineteen visits to the site were conducted during this period and covered both the Fiddyment Ranch and the Westpark Property. Specific survey dates were April 12–14, 19, 21–22, 24–27 and 29; May 31; June 3, 6, 8, 14–15, 18 and 26. Additional special-status plant surveys were conducted within the WRSP Area by Jones & Stokes Associates on April 23, 2002, and May 3, 2002, and by URS on April 22, 2002. Habitat surveys for special-status lichens and bryophytes were also conducted by URS on March 29, 2002 (lichens), and April 5, 2002

[112] Westpark/Fiddyment Ranch "Waters of the U.S. Acreage" tables, January 28, 2003, ECORP Consulting

(bryophytes). To date, no special-status plant surveys have been conducted on the Remainder Area. However, this property is adjacent to the WRSP Area, and appears to include a similar range of habitat types and is likely to support a similar species assemblage as the WRSP Area. The timing of the special-status plant surveys coincides with the period when these species were most visible and identifiable (i.e., flowering period).

Big-scale balsamroot *(Balsamorhiza macrolepis* var. *macrolepis)*. Status: CNPS 1B. Big-scale balsamroot flowers from March through June. This member of the aster family occurs in the Central Valley and ranges to the San Francisco Bay Area on dry slopes and valley grasslands. Suitable habitat is present in the WRSP Area, but no big-scale balsamroots were observed during recent surveys that were conducted there.

Table 4.7-2 Special-Status Species Potentially Occurring in the West Roseville Specific Plan Area

Common Name	Scientific Name[1]	Status[2] (Fed/CA/CNPS)	Season[3]	Primary Habitat[4]	Present on Site[5]	Comments
Plants						
Big-scale balsamroot	*Balsamorhiza macrolepis* var. *macrolepis*	—/—/1B	March–June	Grassland	S	Not observed during surveys of the project site.
Hispid bird's beak	*Cordylanthus mollis* var. *hispidus*	FSC/—/1B	June–September	Grassland/ vernal pool	S	Not observed during surveys of the project site.
Dwarf downingia	*Downingia pusilla*	—/—/2	March–May	Vernal pool	O	Observed during surveys of project site.
Boggs Lake hedge hyssop	*Gratiola heterosepala*	—/E/1B	April–August	Vernal pool	S	Not observed during surveys of the project site.
Ahart's dwarf rush	*Juncus leiospermus* var. *ahartii*	FSC/—/1B	March–May	Vernal pool	S	Not observed during surveys of the project site.
Legenere	*Legenere limosa*	FSC/—/1B	April–June	Vernal pool	R	Historic records for the project site.
Pincushion navarretia	*Navarretia myersii*	—/—/1B	May	Vernal pool	S	Not observed during surveys of the project site.
Slender orcutt grass	*Orcuttia tenuis*	T/E/1B	May–October	Vernal pool	S	Not observed during surveys of the project site.
Sanford's arrowhead	*Sagittaria sanfordii*	FSC/—/1B	May–October	Marshes and swamps (assorted shallow fresh water)	S	Not observed during surveys of the project site.
Invertebrates						
Vernal pool fairy shrimp	*Branchinecta lynchi*	T/—	Resident	Vernal pool	O	Known to occur in the region, recorded at the Westpark property.
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	T/—	Resident	Elderberry plants	U	No elderberry shrubs have been observed during surveys conducted in the WRSP Site.
Vernal pool tadpole shrimp	*Lepidurus packardi*	E/—	Resident	Vernal pool	S	Known to occur in the region. No records for the project site.
California linderiella	*Linderiella occidentalis*	FSC/—	Resident	Vernal pool	S	Known to occur in the region, recorded at the Westpark property.

Table 4.7-2 Special-Status Species Potentially Occurring in the West Roseville Specific Plan Area

Common Name	Scientific Name[1]	Status[2] (Fed/CA/CNPS)	Season[3]	Primary Habitat[4]	Present on Site[5]	Comments
Amphibians						
California tiger salamander[6]	*Ambystoma californiense*	C/CSC	Resident	Grasslands with vernal pools or other seasonal wetlands, and small mammal burrows in adjacent uplands	S	Suitable habitat exists at the site; however, this species is not known to occur in Placer County.
Western spadefoot	*Scaphiopus hammondi*	—/CSC	Resident	Wetlands/grasslands/ vernal pools	R	Known to occur in the region, recorded at the Westpark property.
Reptiles						
Western pond turtle	*Clemmys marmorata*	FSC/CSC	Resident	Ponds/slow moving waters	S	Potential habitat along project area creeks. Known to occur in the region. Not observed in project area.
Birds						
Cooper's hawk	*Accipiter cooperii*	—/CSC (Nesting)	Resident	Woodland habitats	O	Observed during surveys of the project site.
Sharp-shinned hawk	*Accipiter striatus*	—/CSC (Nesting)	Winter	Nests in forests; forages in wooded habitats	S	Known to occur in the vicinity of the project site.
Golden eagle	*Aquila chrysaetos*	FP/CSC	Winter	Various upland habitats	S	May forage in the vicinity
Long-eared owl	*Asio otus*	—/CSC (Nesting	Winter	Woodlands	S	Suitable habitat at the project site.
Burrowing owl	*Athene cuniacularia*	—/PT (Nesting)	Summer	Grassland	O	Observed during surveys of the project site.
Ferruginous hawk	*Buteo regalis*	FSC/CSC	Winter	Various upland habitats	O	Observed during surveys of the project site.
Swainson's hawk	*Buteo swainsoni*	—/T	Summer	Nests in riparian trees; forages in open fields	O	Observed during surveys of the project site.
Northern harrier	*Circus cyaneus*	—/CSC	Resident	Nests in freshwater marsh and agricultural fields; forages in grasslands	O	Observed during surveys of the project site.
White-tailed kite	*Elanus leucurus*	(Nesting)	Resident	Woodland/grassland/ marshes	O	Observed during surveys of the project site.
Loggerhead shrike	*Lanius ludovicianus*	—/CSC	Resident	Various open habitats such as grasslands and oak woodlands.	S	Known to occur in the vicinity of the project site.
Horned lark	*Eremophila alpestris*	SC/CSC	Resident	Open grasslands	O	Observed during surveys of the project site.

Table 4.7-2 Special-Status Species Potentially Occurring in the West Roseville Specific Plan Area

Common Name	Scientific Name[1]	Status[2] (Fed/CA/CNPS)	Season[3]	Primary Habitat[4]	Present on Site[5]	Comments

NOTES:

1. Scientific names are based on the following source: California Department of Fish and Game, Special Animals, July 2000.
2. Status = Status of species relative to the Federal and California State Endangered Species Acts and Fish and Game Code of California
   - Fed = Federal status
   - E = Federally listed as endangered
   - T = Federally listed as threatened
   - PE = Proposed endangered
   - PT = Proposed threatened
   - C = Federal candidate for listing as threatened or endangered
   - FSC = Federal species of concern
   - CA = California status
   - E = Endangered; Species whose continued existence in California is jeopardized
   - T = Threatened; Species that although not presently threatened in California with extinction, is likely to become endangered in the foreseeable future
   - CSC = California Department of Fish and Game "Species of Special Concern". Species with declining populations in California
   - FP = Fully protected against take pursuant to the Fish and Game Code Section 3503.5
   - — = No California or federal status
3. Season = season of use for animals RES = resident SUMR = summer WNTR = winter
4. Primary habitat = Most likely habitat association
5. Present on-site:
   - O = Observed on site R = Recorded on site S = Suitable habitat on site U = Unsuitable habitat on site
6. Central California District Population Candidate

SOURCE: California Department of Fish and Game, California Natural Diversity Database, 2002; *Results of Surveys for Special-status Species in the Fiddyment/Placer 1600 Project Area Placer County, California (Final Report)* by Miriam Green Associates (July 18, 2000); *Wet-Season Surveys for Freshwater Invertebrates and Spring Surveys for Rare Plants for the Placer County Habitat Conservation Plan* by Jones & Stokes Associates (July 2002); *April 2002 Rare Plant Survey, West Roseville Specific Plan* by URS (June 25, 2002); *Lichen and Bryophyte Surveys, West Roseville Specific Plan* by URS (June 25, 2002)

Dwarf downingia (*Downingia pusilla*). Status: CNPS 1B. The dwarf downingia grows in vernal pools and is known to occur in the Central Valley and San Francisco Bay Area. This species flowers from March through May. Dwarf downingia was observed in 18 vernal pools in the WRSP site during the surveys conducted in April 2000.[113]

Hispid bird's beak (*Cordylanthus mollis* ssp. *hispidus*). Status: CNPS List 1B This species is an annual herb in the figwort family (Scrophulariaceae) that grows in saline or alkaline soils in meadows, sinks, playas, and valley and foothill grassland. It blooms June through September. Hispid bird's beak occurs in Alameda, Kern, Merced, Placer, and Solano counties (CNPS 2001). Although suitable habitat for Hispid bird's-beak is present in the WRSP Area, this species was not observed during rare plant surveys that were conducted for this project.

Bogg's Lake Hedge hyssop (*Gratiola heterosepala*). Status: State-listed endangered, CNPS 1B. Gratiola heterosepala can be found in vernal pools and on lake margins. Bogg's Lake hedge hyssop flowers from April through June. This species occurs in the Sacramento Valley, Sierra foothills, and ranges to the Modoc Plateau. Although suitable habitat occurs in the WRSP Area, no Bogg's lake hedge hyssop was observed during recent surveys that were conducted there.

[113] Results of Surveys for Special-status Species in the Fiddyment/Placer 1600 Project Area by Miriam Green Associates, July 18, 2000

Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii)*. Status: CNPS 1B. Ahart's dwarf rush grows in vernal pools and is known from only five occurrences in Butte and Calaveras Counties. Ahart's dwarf rush flowers from March through May. Although there is suitable habitat for this species in the WRSP Area, no Ahart's dwarf rush were observed during recent surveys that were conducted there.

Legenere (*Legenere limosa)*. Status: CNPS 1B. Legenere flowers May through June. Legenere typically occurs in deep seasonal wetlands, such as vernal pools, seasonal swales, and ephemeral drainages that contain water for long periods during spring. Under these wet conditions, legenere forms dense mats. Legenere has become restricted in distribution as a result of habitat conversion and associated disturbance (e.g. degradation of wetland hydrology through plowing, grading, or grazing). Legenere is known to occur sporadically from Red Bluff in the north to Merced County in the south. Suitable habitat is present in the WRSP Area, but legenere was not observed during recent surveys that have been conducted there. However, historic records indicate that legenere occurs in the WRSP Area.

Pincushion navarettia (*Navarettia myersii)*. Status: CNPS 1B. Pincushion navarettia inhabits vernal pools and flowers in May. There are four known occurrences,[114] in Sacramento, Amador, and Merced Counties. Although suitable habitat is present in the WRSP Area, no pincushion navarettia were observed during the recent surveys that were conducted there.

Slender orcutt grass (*Orcuttia tenuis)*. Status: Federally listed as threatened, State-listed as endangered, CNPS 1B. Slender orcutt grass occurs in vernal pools and flowers from May through July. Although suitable habitat for this species occurs in the WRSP Area, slender orcutt grass was not observed during recent surveys that were conducted there.

Sanford's arrowhead (*Sagittaria sanfordii)*. Status: CNPS list 1B. Sanford's arrowhead is a tuberous, perennial herb of fresh emergent wetlands that occurs in marshes and swamps throughout the Central Valley and North Coast Range,[115,116] and blooms May through August. Although suitable habitat for this species occurs in the WRSP Area, Sanford's arrowhead was not observed during recent surveys of that were conducted there.

Special-Status Wildlife

Special-status wildlife surveys were conducted in the WRSP Area by biologists at Miriam Green Associates during the months of January through April 2002 for special-status amphibians, and April

[114] California Natural Diversity Database, July 2002
[115] CNPS Electronic Inventory
[116] Hickman, J.E. (ed). *The Jepson Manual.* University of California Press, Berkeley, 1400 pp., p. 848, 1993

through June for special-status birds. As no special-status mammals are known to occur in the WRSP site, no focused surveys for this group were conducted. Additionally, reconnaissance level surveys for vernal pool crustaceans were conducted at the Westpark Property by Jones & Stokes Associates on March 21, 2002, and April 5, 2002. A total of 10 visits were conducted to sample for special-status amphibians during the January to April 2002 time period. The timing of these surveys coincides with the period when these species are present and able to be observed. The surveys sampled inundated potential breeding pools throughout the WRSP Area and also included nighttime spotlight surveys. Surveys for special-status birds were conducted between the months of April and June. Special-status bird surveys consisted of nine visits to the WRSP Area, all but two of which were conducted between the hours of 7 A.M. and 10 A.M.

To date, no special-status wildlife surveys have been conducted on the Remainder Area. However, these properties are adjacent to the WRSP Area, and appear to include a similar range of habitat types and are likely to support a similar species assemblage as the project site.

Vernal Pool Fairy Shrimp *(Branchinecta lynchi)*. Status: Federal threatened. Fairy shrimp are small (11 to 27 mm) crustaceans adapted to survive the annual flooding and drying of vernal pools. They grow for about two weeks, breed, and produce eggs that are dropped to the silty bottom of the pool. As the vernal pool dries, the adults die. The "resting" eggs are protected by thick outer coverings that resist cold, heat, and desiccation during the summer months. The USFWS determined the vernal pool fairy shrimp to be threatened under the Federal Endangered Species Act in September 19, 1994 (59 FR 48136). Vernal pool fairy shrimp occur commonly in vernal pools in the Roseville area, and have been found in both natural and constructed vernal pools in the project site and surrounding vicinity.[117] Although specific surveys for vernal pool fairy shrimp or vernal pool tadpole shrimp were not conducted for the SOI Amendment, the species is very likely to occur in both the WRSP Area and Remainder Area and is assumed to be present throughout the vernal pools on the project site.[118]

Valley Elderberry Longhorn Beetle *(Desmocerus dimorphus californicus)*. Status: Federal threatened. The valley elderberry longhorn beetle (VELB) occurs in riparian woodlands and other habitats where elderberry shrubs *(Sambucus mexicana)* are present. VELB are completely dependant on elderberry shrubs for all stages of their life cycle. The adults feed on the plants and lay their eggs on the branches. The larvae burrow into the pith of larger branches and live there until they emerge as adults through an exit hole they create. All elderberry shrubs that occur within the known range for VELB and have one or

[117] Sugnet & Associates. *Roseville West Specific Plan Area, Biotic Resources, Existing Conditions*, City of Roseville, California, p. 18, July 21, 1994

[118] Results of Surveys for Special-status Species in the Fiddyment/Placer 1600 Project Area by Miriam Green Associates, July 18, 2000

more stems with diameters of one inch or greater at ground level are considered potential habitat for this species. Although the UELB is typically associated with the Central Valley, the Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999) recommend surveys for this species in all or portions of 31 counties in California. Although this species and its host plant are known to occur in the general project vicinity, no elderberry shrubs have been observed during biological surveys of the WRSP Area. Therefore, this species is not expected to occur in either the WRSP Area or Remainder Area.

Swainson's Hawk (*Buteo swainsoni*). Status: State threatened. Swainson's hawk is listed as a State "threatened" species. This finding was based on the sharp reduction in riparian woodlands and forests experienced over the state in the last 100 years, and the consequent reduction in Swainson's hawks, which use riparian woodlands for nesting. Swainson's hawks are open country birds, which forage in grasslands and agricultural fields, especially after disking or harvest. Swainson's hawk can forage as much as 20 miles from the nest, and observations of Swainson's hawk in the project vicinity are not uncommon. Several Swainson's hawk were observed flying over the WRSP site between April and June of 2000. Additionally, a pair of Swainson's hawks was observed nesting in a tree adjacent to the WRSP Area. The success of the nest could not be confirmed during the surveys.[119] As shown in Figure 4.7-3, Swainson's Hawk Nesting & Foraging Map, three historic records for this species occur within 1 mile of the WRSP Area.[120]

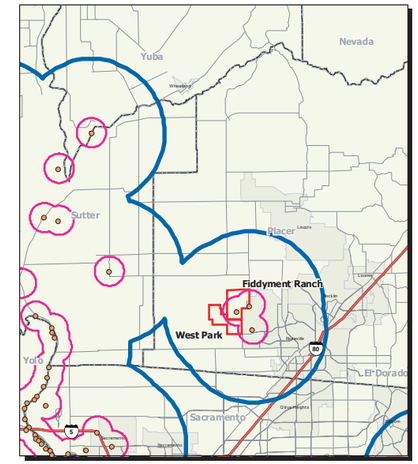
Burrowing Owl (*Athene cunicularia*). Status: State Proposed Threatened species and a "fully protected" raptor. It is also federally protected under the Migratory Bird Treaty Act (16 U.S.C §703-711). Burrowing Owl feed on rodents, small reptiles, and large insects in annual grasslands, pastures, and ruderal vegetation. They breed between March and August in communal burrow colonies that they have taken over from ground squirrels and other burrowing mammals. Three pairs and three individual burrowing owls have been observed during surveys of the WRSP Area.[121]

Other Special-Status Animals

The following species are not listed as threatened or endangered species by the federal or State governments, but require analysis because they are fully protected species under State or federal laws or regulations, or because they are species for which there is evidence that they could meet the definition of rare contained in section 15380 of the CEQA Guidelines. These special-status species are included

[119] Results of Surveys for Special-status Species in the Fiddyment/Placer 1600 Project Area by Miriam Green Associates, July 18, 2000
[120] CDFG Natural Diversity Database, July 2002
[121] Results of Surveys for Special-status Species in the Fiddyment/Placer 1600 Project Area by Miriam Green Associates, July 18, 2000

Figure 4.7-3 Swainson's Hawk Nesting & Foraging Map



LEGEND

- Swainson's Hawk
- 1 Mile Radius
- 5 Miles Radius *(see inset)*
- Project Boundary *(see inset)*
- Onsite Nesting
- Onsite Foraging (Impacted)
- Open Space
- Park

Fiddyment

Westpark

Project	Total Acres
Fiddyment	1676.390
Reason Farms	1751.908
West Park	1481.109

Potential Impact				Mitigation Required				
Distance From Nest	Potential Foraging Habitat on Property Proposed Impaired by Development	Swainson's Hawk Mitigation Ratio	Potential Swainson's Hawk Habitat Mitigation	Parcel Number	On-Site Open Space/Preserve Acreage	Net Foraging Habitat to be Acreage	Yankee Slough Foraging Habitat	Conservation Easement Off-Site
0-1	1267.438	1.00	1267.438	W-81	267.000			
1-5	934.967	0.75	701.225	F-80	132.700		690.220	
Total	**2202.404**		**1968.663**		**399.700**	**1568.963**	**690.220**	**878.743**

1,000 0 1,000 2,000 3,000
Feet

FIGURE **4.7-3**
Swainson's Hawk Nesting & Foraging Map

Scale: 1" = 12,000'

10659-00

Source: ECORP Consulting, Inc.

City of Roseville

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because, due to the timeline of this project, they could be elevated to State or federal endangered or threatened status prior to completion of the development of the WRSP Area.

Prairie Falcon (*Falco mexicanus*). Status: "Fully protected" raptor and State Species of Special Concern. Prairie falcons occur as fall and winter migrants in the project site, and feed on small birds, and rodents in annual grasslands, pastures, and ruderal vegetation. Although suitable habitat for this species occurs there, prairie falcon was not observed during surveys of the WRSP Area.

White-tailed Kite (*Elanus leucurus*). Status: "Fully protected" raptor in California. White tailed kites (also known as Black-shouldered kites) feed on rodents, small reptiles, and large insects in fresh emergent wetlands, annual grasslands, pastures, and ruderal vegetation. They breed between February and October. Unlike other raptors, kites often roost, and occasionally nest, communally. Therefore, disturbance of a relatively small roost or nesting area could affect a large number of birds. This species was observed during the winter surveys of the WRSP Area.[122]

Cooper's Hawk (*Accipiter cooperii*). Status: State Species of Special Concern. Cooper's hawks breed between March and August. Usually they nest and forage in woodlands or riparian vegetation near water. This species has been observed in the riparian corridors present on the WRSP Area.

Northern Harrier (*Circus cyaneus*). Status: State Species of Special Concern. Northern harriers breed between April and September and nest on the ground in shrubby vegetation. They hunt in annual grasslands, pastures, fresh emergent wetlands, and some croplands. Suitable foraging and potential nesting habitat for this species occurs in the WRSP Area and they are frequently observed foraging there.

Loggerhead shrike (*Lanius ludovicianus*). Status: State Species of Special Concern. Loggerhead shrikes occur in woodland and chaparral habitats throughout California. They feed primarily on insects or small rodents, which they hunt from grasslands adjacent to woodland areas. The shrike is also called "butcher bird" for its habit of impaling its prey on cactus thorns or barbed wire fences. Although suitable foraging and nesting habitat occurs in the WRSP Area, this species has not been reported in field surveys.[123]

California Tiger Salamander (*Ambystoma californiense*). Status: split in its listing status by location. The Central California Distinct Population Segment of the California Tiger Salamander is proposed as a Federally Threatened species, where the Sonoma County DPS and Santa Barbara DPS are already listed as Federally Endangered. Tiger salamanders occur in the Central Valley and adjacent foothills. They

[122] Results of Surveys for Special-status Species in the Fiddyment/Placer 1600 Project Area by Miriam Green Associates, July 18, 2000
[123] Results of Surveys for Special-status Species in the Fiddyment/Placer 1600 Project Area by Miriam Green Associates, July 18, 2000

breed in vernal pools and seasonal wetlands, and spend summer months in abandoned ground squirrel burrows in grassland and upland habitats. Although suitable habitat for this species occurs in the WRSP Area, California tiger salamander has not been observed during surveys.[124]

Western spadefoot (*Scaphiopus hammondii*). Status: State Species of Special Concern. Western spadefoot breed and lay eggs in vernal pools and seasonal wetlands throughout the Central Valley. After pools dry, the adults move into burrows in adjacent grassland and woodland areas. Although suitable habitat for this species occurs at the project site, and the CNDDB contains recent records for this species on and adjacent to the WRSP Area, western spadefoot was not observed during surveys of the WRSP Area.[125]

Northwestern Pond Turtle (*Clemmys marmorata*). Status: State Species of Special Concern. Northwestern pond turtle occurs in ponds and slow streams throughout western California and requires a reliable source of water. Although most of the aquatic habitat in the WRSP Area is reported to be intermittent, which would be unsuitable, this species could occur in deeper pools that persist year round along Pleasant Grove and Kaseberg Creeks. However, this species was not observed during surveys of the WRSP Area.[126]

4.7.3 Regulatory Setting

Federal

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) implements the Federal Endangered Species Act (FESA; 16 U.S.C §1531 *et seq.*). Projects that would result in "take" of any federally listed threatened or endangered species are required to obtain authorization from the USFWS through either Section 7 (interagency consultation) or Section 10(a) (incidental take permit) of FESA, depending on whether the federal government is involved in permitting or funding the project. The authorization process is used to determine if a project would jeopardize the continued existence of a listed species and what mitigation measures would be required to avoid jeopardizing the species.

"Take" under the federal definition means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Candidate species do not have the full protection of FESA.

[124] Results of Surveys for Special-status Species in the Fiddyment/Placer 1600 Project Area by Miriam Green Associates, July 18, 2000
[125] Results of Surveys for Special-status Species in the Fiddyment/Placer 1600 Project Area by Miriam Green Associates, July 18, 2000
[126] Results of Surveys for Special-status Species in the Fiddyment/Placer 1600 Project Area by Miriam Green Associates, July 18, 2000

Section 10 of the FESA provides an exception to the Section 9 prohibitions against take. This exception provides a regulatory mechanism to permit the "incidental take of federally listed fish and wildlife species by private interests and non-Federal government agencies during lawful land, ocean, and water use activities." Incidental take is defined as a take of listed fish or wildlife species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by a Federal agency or private party. Section 10(a)(1)(B) requires an applicant for an incidental take permit to submit a "conservation plan that specifies, among other things, the impacts that are likely to result from the taking and the measures the permit applicant will undertake to minimize and mitigate such impacts." FESA compliance through Section 10 is typically undertaken only when compliance cannot be conducted through Section 7 (i.e., when there is no federal funding, approval, or permit process other than the incidental take permit process).

City/U.S. Fish and Wildlife Service MOU

In May 2000, the City and the USFWS entered into a MOU to prepare a Habitat Conservation Plan (HCP) or equivalent to minimize the indirect impact and incidental take of vernal pool species from future City growth. For a full discussion of this MOU and its applicability to the proposed project please see Impact 4.7-12 on this Section.

Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act, 16 U.S.C. §703–711, makes it "unlawful to take any migratory bird listed in 50 C.F.R. Part 10, including nests, eggs, or products." This regulation is pertinent to any shrub or tree removal required for a proposed project, or project-related disturbance that could affect nesting migratory birds. It could require that elements of the proposed project (particularly vegetation removal) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by the California Department of Fish and Game (CDFG) and/or USFWS. Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered "taking."

Clean Water Act

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. Section 401 prohibits the discharge of any pollutant into the Nation's waters without a permit, and Section 402 sets up the permit program. Section 404 of the Act regulates activities that result in discharge of dredged or fill material into waters of the United States. The

term "waters of the United States" as defined in the Code of Federal Regulations (33 C.F.R §328.3[a]; 40 C.F.R §230.3[s]) includes:

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands. (Wetlands are defined by the federal government [CFR, Section 328.3(b), 1991] as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.);
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:
   - which are or could be used by interstate or foreign travelers for recreational or other purposes; or
   - from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
   - which are used or could be used for industrial purposes by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under the definition;
5. Tributaries of waters identified in paragraphs (1) through (4);
6. Territorial seas; and
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1) through (6).

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with EPA [328.3(a)(8) added 58 FR 45035, Aug. 25, 1993].

In 1987, the Corps published a manual which standardized the manner in which wetlands are to be delineated nationwide. To determine whether areas that appear to be wetlands are subject to Corps jurisdiction (i.e., are "jurisdictional" wetlands), a wetlands delineation must be performed. Under normal circumstances, positive indicators from three parameters (1) wetland hydrology, (2) hydrophytic vegetation, and (3) hydric soils must be present to be classified as a jurisdictional wetland. Wetlands generally include swamps, marshes, bogs, and similar areas.

State

California Endangered Species Act (CESA)

The CDFG administers a number of laws and programs designed to protect plant, fish, and wildlife resources. The most significant of these regulations is the California Endangered Species Act of 1984 (CESA—Fish and Game Code Section 2050), which regulates the listing and take of state-endangered (SE) and state-threatened (ST) species. CESA declares that deserving species will be given protection by the

state because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the state. CESA has established that it is state policy to conserve, protect, restore, and enhance endangered species and their habitats.

Species listed under CESA cannot be taken without adequate mitigation and compensation. The definition of take under CESA is the same as described above for FESA. However, based on findings of the California Attorney General's Office, take under CESA does not prohibit indirect harm by way of habitat modification. Typically, the CDFG implements endangered species protection and take determinations by entering into management agreements (Section 2081 Management Agreements) with project applicants.

The CDFG maintains lists for Candidate-Endangered Species (SCE) and Candidate-Threatened Species (SCT). California candidate species are given protection that is equal to that provided to listed species. CDFG also lists Species of Special Concern (CSC) based on limited distribution, declining populations, diminishing habitat, and/or unusual scientific, recreational, or educational value. These species are not afforded the same legal protection as listed species, but may be added to official lists in the future. The designation of CSC is intended by the CDFG as a management tool for consideration in future land use decisions. As a consequence, the CDFG typically requests that CEQA lead agencies give consideration to minimization of impacts to CSC species when approving projects.

California Environmental Quality Act

FESA and CESA protect only those species formally listed as threatened or endangered (or rare in the case of the State list). Section 15380 of the CEQA Guidelines independently defines "endangered" species of plants or animals as those whose survival and reproduction in the wild are in immediate jeopardy and "rare" species as those who are in such low numbers that they could become endangered if their environment worsens. Therefore, a project normally will have a significant effect on the environment if it will substantially affect a rare or endangered species of animal or plant or the habitat of the species. The significance of impacts to a species under CEQA must be based on analyzing actual rarity and threat of extinction despite legal status or lack thereof.

Sections 3511 and 3503.5 of the Fish and Game Code

The CDFG derives its authority from the Fish and Game Code of California. Species listed under the California Endangered Species Act (Fish and Game Code section 2050 *et seq.*) cannot be "taken" without adequate mitigation and compensation.

Fish and Game Code section 3511 describes bird species, primarily raptors, which are "fully protected." Fully protected birds may not be taken or possessed at any time. Section 3503.5 of the code protects all birds of prey and their eggs and nests.

Sections 1600–1607 of the Fish and Game Code

Under Sections 1600–1607 of the California Fish and Game Code, CDFG regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFG jurisdiction are defined in the code as the bed, channel, or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit..." (Section 1601).

This broad definition gives CDFG great flexibility in deciding what constitutes a river, stream, or lake. The CDFG defines streams under the jurisdiction of Sections 1600–1607 as follows:

1. The term stream can include intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams (United States Geological Survey [USGS] maps), and watercourses with subsurface flows. Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife.
2. Biological components of any stream may include aquatic and riparian vegetation, all aquatic animals including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system.
3. As a physical system, a stream not only includes water (at least on an intermittent or ephemeral basis), but also a bed or channel, a bank and/or levee, instream features such as logs or snags, and various flood plains, depending on the return frequency of the flood event being considered.
4. The lateral extent of a stream can be measured in several ways depending on a particular situation and the type of fish or wildlife resource at risk. The following criteria are presented in order from the most inclusive to the least inclusive:
   - The flood plain of a stream can be the broadest measurement of a stream's lateral extent depending on the return frequency of the flood event used. For most flood control purposes, the 100-year event is the standard measurement. However, because it may include significant amounts of upland or urban habitat, in many cases the 100-year floodplain may not be appropriate.
   - The outer edge of riparian vegetation is generally used as the line of demarcation between riparian and upland habitats and is, therefore, a reasonable and identifiable boundary for the lateral extent of a stream. In most cases, the use of this criterion should result in protecting the fish and wildlife resources at risk.
   - Most streams have a natural bank which confines flows to the bed or channel, except during flooding. In some instances, particularly on smaller streams or dry washes with little or no riparian habitat, the bank should be used to mark the lateral extent of a stream.
   - A levee or other artificial stream bank could also be used to mark the lateral extent of a stream. However, in many instances, there can be extensive areas of valuable riparian habitat located behind a levee (CDFG, 1992).

In practice, CDFG usually marks its jurisdictional limit at the top of the stream or bank or at the outer edge of the riparian vegetation, whichever is wider.

State Water Resources Control Board

The State Water Resources Control Board has authority over wetlands through the Clean Water Act (Section 401). The Clean Water Act requires that an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) to first obtain a certificate from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the authority to either grant certification or waive the requirement for permits is delegated by the State Water Resources Control Board to the nine regional boards. A request for certification or waiver will be submitted to the regional board at the same time that an application is filed with the Corps. The regional board has 60 days to review the application and act. Because no Corps permit is valid under the CWA unless "certified" by the state, these boards may effectively veto or add conditions to any Corps permit.

Additionally, implementation of the State Water Resources Control Board NPDES Construction Activities Permit would reduce impacts associated with erosion and runoff from construction sites containing soil or other materials that could degrade water quality of local streams by requiring contractors acquire a State General Construction Activity Stormwater Permit, which requires the implementation of BMPs, including schedule of activities, maintenance procedures, and other management practices to prevent or reduce pollution.

Local

Placer Legacy Open Space and Agricultural Conservation Program

The Placer Legacy Open Space and Agricultural Conservation Program (Placer Legacy) is a program that is being developed by Placer County in conjunction with the resource agencies and local stakeholders to protect and conserve open space and agricultural lands in Placer County.[127] A description of the program is included below:

> It is the goal of Placer Legacy to develop specific, economically viable, implementation programs which will enable the residents of Placer County to preserve a sufficient quantity of these resources to maintain a high quality of life and an abundance of diverse natural habitats while supporting the economic viability of the County and enhancing property values. Placer Legacy is intended to further the various open space and natural resource goals of the Placer County General Plan and associated General Plans of the six cities in Placer County.
>
> The general goals of Placer Legacy for biological resources are (1) to conserve representative natural habitats within the Great Valley, Foothill, and Sierra Nevada ecoregions, (2) to identify and conserve smaller sensitive communities at the scales at which they occur, (3) to maintain or restore key ecosystem processes, and (4) whenever, possible, to reduce threats to biodiversity (e.g., unnecessary habitat conversion, fragmentation, or degradation; disruption of ecosystem processes; invasive exotic species).

[127] Placer County Planning Department, Placer Legacy Open Space and Agricultural Conservation Program, June 20, 2000

> The objectives of the Placer Legacy are to maintain a viable agricultural segment to the economy, conserve natural features necessary for access to a variety of outdoor recreation opportunities, retain important scenic and historic areas, preserve the diversity of plant and animal communities, protect endangered and other special status plant and animal species, separate urban areas into distinct communities, and ensure public safety.
>
> Placer Legacy is intended to provide a wide variety of ownership, preservation, and funding methods to address the diverse circumstances present in the County and maintain local land use control by taking a leadership role in the preservation of endangered species and habitat protection.

In June of 2000, the Board of Supervisors directed County staff to begin implementation of the Placer Legacy Program. As a part of this effort, the County Planning Department has started to prepare a Natural Communities Conservation Plan (NCCP) (Section 2800 *et seq.* of the California Fish and Game Code) and a Habitat Conservation Plan (HCP) (Section 10 of the FESA).[128] As a part of developing these two conservation plans, the County will include requirements for meeting federal laws and regulations related to wetland impacts (Section 404 of the Clean Water Act). It is understood that the program will be based on a "willing seller, willing buyer" approach. At the time of the preparation of this EIR potential preservation areas have not been identified, so the SOI Amendment Area is not located within a defined acquisition area. For a full discussion of the applicability of this Plan to the proposed project please see Impact 4.7-12 of this Section.

City of Roseville Improvement Standards

Implementation of Section 11 of the City's Improvement Standards would reduce impacts associated with erosion and runoff from construction sites containing soil or other materials that could degrade water quality if discharged to local streams and changes in surface water or groundwater quality resulting from stormwater runoff by requiring the development of an Erosion Control Plan, which would include a description of the site, time restrictions, erosion and sediment controls to be used, means of waste disposal, control of post-construction sediment and erosion control measures and maintenance responsibilities, landscaping during and after grading, and nonstormwater management controls.

City of Roseville Zoning Ordinance—Tree Preservation Chapter (Chapter 19.66)

The City of Roseville Tree Preservation Ordinance protects native oak trees 6 inches or more in diameter at breast height (dbh) and specified landmark trees. The ordinance requires a permit for any activity that would harm, destroy, kill, or remove any protected tree. In addition to removal, grading (cut or fill) and trenching within the dripline are subject to permit approval, as discussed below:

1. Grading around trees to be limited to outside the dripline. Any tree well graded should be drained to some outfall or swale.

[128] Placer County Planning Department URL: http://www.placer.ca.gov/planning/legacy/legacy-hcp-nccp.htm

2. The following conditions shall apply to ensure the preservation of trees:
    a. Each tree or group of trees to be saved shall be fenced by a chain link fence prior to any grading or movement of heavy equipment or issuance of any permits.
    b. Fencing shall be located one foot (1') outside the dripline of the tree or trees.
    c. Signs shall be posted on all sides of said fences stating that each tree/trees is/are to be preserved and indicating the amount of the bond that will be forfeited if any tree is damaged.
3. The grading plan for the project has been designed for no grading to occur within the dripline of any oak tree unless specifically approved by planning department and shown on these plans. No grades shall be modified without the approval of the civil engineer and the City of Roseville.
4. No trenching shall occur beneath the dripline of any oak tree to be saved unless stated on these plans "trenching under this tree is approved".
5. Parking of vehicles and equipment or storage of materials under the dripline of trees shall not occur at any time.

Section 19.66.070—Oak Tree Planting and Replacement Program

The review body may condition any tree permit or administrative tree permit involving removal of a protected tree upon the replacement of trees in kind. The replacement requirement shall be calculated based upon an inch for an inch replacement of the removed tree(s), an inch being equivalent to a 15-gallon tree. The total of replacement trees shall have a combined diameter of the tree(s) removed. A minimum of 50 percent of replacement trees shall be native. Up to 50 percent may be nonnative. The review body may approve a replacement program using one or any combination of the four methods described below. The preferred alternative is on-site replacement:

A. **Replacement Trees**. Replacement trees may be planted on-site or in other areas where there is maintenance to ensure survival of the trees.

B. **Relocation of Trees**. In certain cases, the City may consider the relocation of Native Oak Trees from one area in a project to another. Credit shall be given for relocation on the same basis as replacement. The guidelines and limitations for relocation are as follows:

    1. The tree(s) being recommended for relocation must be approved by the review body whose decision will be based upon factors relating to health, type, size, time of year and proposed location.
    2. The relocation of a tree shall be conditioned to require a secured five-year replacement agreement for the tree. If at the end of five (5) years the tree is deemed by an arborist to be in a substantially similar condition to that prior to the transplanting, the agreement will be terminated. If during the five (5) year period the tree dies it shall be replaced as required by this section.

C. **Revegetation Requirements**. The Approving Authority may, instead of requiring replacement trees, require implementation of a revegetation plan. The Developer shall enter into a written agreement with the City obligating the developer to comply with the requirements of the revegetation program. A performance security or bond for 150 percent of the cost of the revegetation plan shall be required to insure that the agreement is fulfilled. The Director shall approve the bid for the proposed work. The revegetation program shall propagate native oak trees from seed using currently accepted methods. A revegetation program shall

identify the seed source of the trees to be propagated, the location of the plots, and the methods to be used to ensure success of the revegetation program. A revegetation program shall not be considered complete until the trees to be propagated have reached one (1) inch in diameter or a revegetation program which demonstrates the need for alternative success criteria and achieves mitigation on an inch for inch basis is approved by the Planning Commission.

D. **In-Lieu Mitigation Fee**. The Approving Authority may determine that the remedies described above are not feasible or desirable and may require instead payment of a cash contribution based upon the cost of purchasing, planting and irrigating the required number of fifteen (15) gallon trees. The cost of purchasing, planting and irrigating a fifteen (15) gallon oak tree shall be set by City Council resolution. The cash contribution shall be deposited into one of the following funds as determined by the Community Development Director:

1. Native Oak Tree Propagation Fund. This fund shall be used to propagate and protect native oak trees. Uses of the fund include, but are not limited to, purchasing property to plant or protect native oak trees, propagating native oak trees from seed or container stock and maintaining existing native oak trees.

2. Nonnative Tree Fund. This fund shall be used to purchase and plant nonnative trees within Roseville. Uses of the fund include, but are not limited to, purchasing and propagating nonnative trees from seed or container stock and maintaining existing nonnative trees (Ord. 3353 § 1, 1999; Ord. 3014 (part), 1996.).

City of Roseville Floodplain Development Regulations

Implementation of Chapter 9.80 of the Zoning Ordinance would control the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters. In addition, regulations would control fill, grading, dredging, and other development, which may increase flood damage.

City of Roseville General Plan

The City of Roseville General Plan includes goals and policies for the preservation of the value of biological resources in the community. These policies are specific to vegetation and wildlife. However, other policies intended to preserve water quality, air quality and other features also benefit and protect biological resources. Refer to Appendix C for a complete list of all applicable City goals and policies.

Applicable WRSP Measures

The WRSP includes several measures designed to protect existing resources, listed below:

- No net loss of wetland functions, habitat and values
- Development of a "vernal pool strategy" consistent with the City/USFWS MOU
- Designation of creek corridors/floodplains as open space
- Designation of concentrated area of oak woodland as park

4.7.4 Impacts and Mitigation Measures

Methods of Analysis

Analysis of potential project impacts to biological resources is based on a combination of background and historic record searches, review of previous field investigations and a reconnaissance level visit to the site. Background research included the use of the California Department of Fish and Game's Natural Diversity Database (CNDDB), and the California Native Plant Society's Electronic Inventory to determine what special-status plant or wildlife species are expected to occur in the vicinity of the SOI Amendment Area. Additional information on special-status species potentially occurring within the SOI Amendment Area was acquired from a species list from the USFWS in a letter dated June 12, 2002 (file number 1-1-02-SP-2224).

A series of natural resource investigations have been conducted for the WRSP Area. Reports detailing the results of these investigations were acquired and reviewed to determine which species have been recently observed in the WRSP Area. These reports are listed on page 4.7-1. These reports are available for review at the City of Roseville Planning Department, 311 Vernon Street, Roseville, California.

A reconnaissance level visit to the site was conducted on May 15, 2002, to determine the habitat types that are present within the SOI Amendment Area. Using that information, the list of species that was derived from the background research was analyzed to determine which of those species were likely to occur within both the WRSP Area and Remainder Area.

Surveys conducted in the WRSP Area for special status species are disused above.

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area would do any of the following:

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan
- Contribute to a substantial reduction in numbers, restriction of range, or loss of habitat for a population of special-status species, including fully protected, candidate for listing, proposed for threatened or endangered, and species considered "rare" under CEQA section 15380 by CDFG
- Interfere substantially with the movement of any resident or migratory fish or wildlife species
- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations
- Have a substantial adverse effect on federally protected wetlands defined by section 404 of the Clean Water Act through removal, filling, hydrological interruption, or by other means
- Violate the Tree Preservation chapter of the Roseville Zoning Ordinance, including damage, removal or encroachment into the protected zone of native oak trees greater than 6 inches in diameter at breast height (DBH)

Impacts

IMPACT 4.7-1:	LOSS OF FEDERALLY PROTECTED WETLANDS AND "OTHER WATERS" OF THE UNITED STATES.	
Applicable Policies and Regulations:	Section 404 and 401 of the Clean Water Act City/USFWS MOU	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.7-1 (Ensure no net loss of wetlands)	MM 4.7-2 (Wetland protection policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

Wetlands occur throughout south Placer County. Site-specific wetland delineations have been completed for the WRSP Area, but not for the Remainder Area. A total of 63.89 acres of wetlands or "other waters" of the U.S. have been identified in the WRSP (Figure 4.7-2). Implementation of the WRSP is anticipated to result in the loss of a total of 32.78 acres of those wetlands and "other waters" of the U.S (refer to Table 4.7-3, in MM 4.7-1). Development of the Remainder Area would be expected to have a similar effect on wetlands, and is discussed in this Section.

West Roseville Specific Plan

Jurisdictional delineations have been conducted for the entire WRSP Area and the Corps has verified delineations. A total of 63.89 acres of wetlands or "other waters" of the U.S. have been identified in the WRSP Area.[129] These wetlands consist of 33.91 acres of vernal pools, 8.05 acres of vernal swales, 17.39 acres of wet swales, 3.92 acres of seasonal wetlands and 0.62 acres of emergent marsh.[130,131]

[129] Jurisdictional Delineation for the Placer 1600 Property by Gibson & Skordal Wetland Consultants, January 1999, revised March 1999. Jurisdictional Delineation for the Fiddyment Property by Gibson & Skordal Wetland Consultants, September 1998, Revised November 1998.

[130] Jurisdictional Delineation for the Placer 1600 Property by Gibson & Skordal Wetland Consultants, January 1999, revised March 1999. Jurisdictional Delineation for the Fiddyment Property by Gibson & Skordal Wetland Consultants, September 1998, Revised November 1998.

Implementation of the WRSP is anticipated to result in the total loss of 32.78 acres of wetland habitat. Of this, direct losses account for of a total of 23.21 acres of wetlands and "other waters" of the U.S., including 13.80 acres of vernal pools, 3.29 acres of vernal swales, 4.17 acres of wet swales, 1.33 acres of seasonal wetlands, and 0.62 acres of emergent marsh. [132] Indirect impacts to wetlands account for an additional 8.83 acres of vernal pool habitat and 0.74 acres of vernal swale habitat (Table 4.7-3). Figure 4.7-2 shows the distribution of wetlands throughout the WRSP Area with an overlay of the land use plan, as well as the on-site areas of avoidance, mitigation, and preservation. Figure 4.7-4, Potential Off-site Mitigation Property Locations in Western Placer County, shows the areas that would be used for off-site preservation and mitigation. Approximately 40.19 acres of miscellaneous wetlands found within areas designated as open space would remain, while wetlands in other areas are assumed to be filled by WRSP development. Loss of these wetlands would occur as a result of grading in preparation for development, construction of roads and utility corridors, creation of stormwater detention basins along stream corridors and other ground disturbing activities related to construction in the WRSP Area. This impact would be considered **significant**.

MM 4.7-1 requires that the WRSP achieve no net loss of wetlands through on-site avoidance, on-site wetland construction, and/or off-site wetland construction, off-site wetland restoration, and off-site acquisition where approved by the permitting agencies. Because the Corps has a no-net loss policy for wetlands subject to its jurisdiction, MM 4.7-1 would be achieved through the 404-permit process.

On July 11, 2002, a Section 404 Individual Permit Application was submitted by the WRSP applicants to the Corps for review. The basic premise of the 404-permit program is that no discharge of dredged or fill material can be permitted into "waters of the U.S." if a practicable alternative exists that is less damaging to the aquatic environment, or if the nation's waters would be significantly degraded. Therefore, when a permit is applied for, the applicant must show that they have:

1. Taken steps to avoid wetland impacts where practicable
2. Minimized potential impacts to wetlands
3. Provided compensation for any remaining, unavoidable impacts through activities to restore or create wetlands

Regulated activities discharges are controlled by a permit review process, which includes a period designated for public and regulatory comments. An individual permit is usually required for potentially significant impacts. However, for most discharges that will have only minimal adverse effects (generally

[131] Westpark/Fiddyment Ranch "Wetland Mitigation (Revised)" table, August 19, 2003, ECORP Consulting
[132] Westpark/Fiddyment Ranch "Wetland Mitigation (Revised)" table, August 19, 2003, ECORP Consulting

less then one-half an acre of wetland habitat or 300 linear feet of perennial streams), the Army Corps of Engineers often grants up-front general permits. These may be issued on a nationwide, regional, or state basis for particular categories of activities (for example, minor road crossings, utility line backfill, and bedding) as a means to expedite the permitting process. This application includes an analysis of impacts on wetlands and provides a detailed mitigation and monitoring plan for the WRSP Area. As described in the application, the WRSP has been designed to incorporate substantial habitat preservation, and includes approximately 684 acres of on-site preservation and open space land. The goal of the WRSP's conservation strategy is to achieve no net loss of wetlands through a combination of on-site avoidance and preservation, on-site enhancement and creation of wetlands, off-site acquisition and preservation of existing vernal pool complexes, off-site restoration of degraded vernal pool habitat, and purchase of vernal pool credits at an agency-approved mitigation bank. These wetlands, both on-site and off-site, would be preserved and managed in perpetuity to provide for the long-term viability of the protected wetlands. The project applicants have identified East Sheridan and Yankee Slough as off-site mitigation areas, which are discussed in detail in MM 4.7-1 and MM 4.7-2. Restoration of wetland habitats is preferred to wetland creation because creation of wetlands introduces wetlands to an area historically upland in nature, whereas restoration re-establishes topographic and hydrologic conditions to a landscape that historically contained wetlands but has undergone land conversion. This approach is consistent with the City/USFWS MOU. The Corps will determine whether the Permit Application meets the no net loss requirement, and request modification if it does not. The project applicant must obtain a 404 permit prior to discharging any dredged or fill material into any waters of the U.S. Because the 404 permit would ensure no net loss of wetlands, it would satisfy MM 4.7-1 reducing the severity of this impact to a level that is **less than significant**.

Remainder Area

No wetland delineations have been conducted for the Remainder Area. However, based on a review of aerial photographs of the area, approximately 50 acres of wetlands are assumed to be present. If the remaining portions of the SOI Amendment Area were developed at levels similar to those proposed in the WRSP, future development in this area would cause further losses to wetland resources as a result of grading and other ground disturbance related to development of the property. This impact would be considered **significant**.

MM 4.7-2 requires that specific plans or development plans in the Remainder Area require that, prior to approval of development plans for the Remainder Area, wetland resources be delineated through a jurisdictional delineation of wetlands and 'other waters' of the U.S. submitted for Corps review, and that mitigation plans provide for no net loss of wetlands identified in the Remainder Area. No net loss of

Figure 4.7-4 Potential Off-site Mitigation Property Locations in Western Placer County

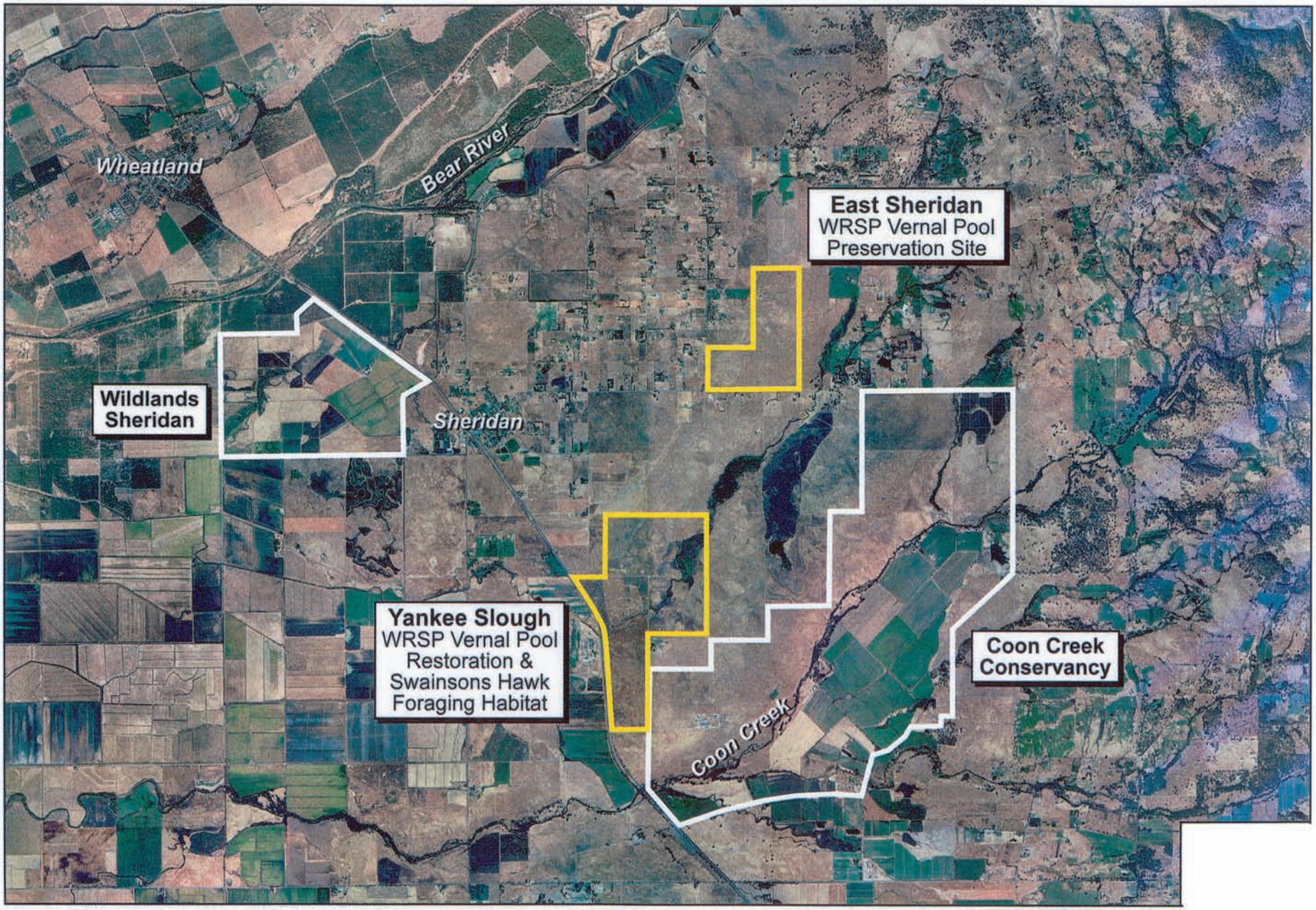


FIGURE **4.7-4**

Potential Off-Site Mitigation Property Locations in Western Placer County

Not to Scale

10659-00

***Source*:** ECORP Consulting, Inc., 2003

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wetlands in the Remainder Area could be accomplished through on-site avoidance, on-site wetland construction, off-site wetland construction, off-site wetland restoration, or off-site acquisition where approved by the permitting agencies. Implementation of MM 4.7-2 would reduce the impact to a **less-than-significant level**.

IMPACT 4.7-2:	LOSS OF FEDERALLY LISTED VERNAL POOL CRUSTACEANS AND THEIR HABITAT.	
Applicable Policies and Regulations:	Federal Endangered Species Act City/USFWS MOU	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.7-1 (Ensure no net loss of wetlands)	MM 4.7-2 (Wetland protection policies); MM 4.7-3 (Vernal pool crustacean policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

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Potential habitat for vernal pool crustaceans such as vernal pool fairy shrimp, vernal pool tadpole shrimp, and California linderiella is present in the WRSP Area. Although no protocol level surveys for federally listed vernal pool crustaceans have been conducted for the WRSP, vernal pool fairy shrimp are reported to occur within the WRSP Area in historic records, and are assumed to be present throughout the vernal pools in the WRSP Area.[133] Additionally, recent reconnaissance level surveys have documented the presence of California linderiella within the WRSP Area.[134] Potential habitat for vernal pool crustaceans in the WRSP Area includes 33.91 acres of vernal pools, 8.05 acres of vernal swales, 17.39 acres of wet swales, 3.92 acres of seasonal wetlands and 0.62 acres of emergent marsh.[135,136]Implementation of the WRSP is anticipated to result in the total loss of 22.63 acres of vernal pools, 4.03 acres of vernal swales, 4.17 acres of wet swales, 1.33 acres of seasonal wetlands, and 0.62 acres of emergent marsh would be lost.[137] The seasonal wetland is a single artificial feature. The berm that was built to create the wetland has been removed and the water has been allowed to drain away. Due to these

[133] CDFG Natural Diversity Database, July 2002

[134] Results of Surveys for Special-status Species in the Fiddyment/Placer 1600 Project Area by Miriam Green Associates, July 18, 2000

[135] Jurisdictional Delineation for the Placer 1600 Property by Gibson & Skordal Wetland Consultants, January 1999, revised March 1999. Jurisdictional Delineation for the Fiddyment Property by Gibson & Skordal Wetland Consultants, September 1998, Revised November 1998.

[136] Westpark/Fiddyment Ranch "Wetland Mitigation (Revised)" table, August 19, 2003, ECORP Consulting

[137] Westpark/Fiddyment Ranch "Wetland Mitigation (Revised)" table, August 19, 2003, ECORP Consulting

changes in hydrology, this feature is being re-delineated. It is expected that when verified by the Corps, the size will be greatly reduced.'[138]

Loss of wetland habitat would occur as a result of grading and other ground disturbing activities related to the development of the WRSP Area. Additionally, direct loss of vernal pool crustacean habitat could occur as a result of periodic inundation that could result from the construction of the proposed weir, culverts, and drainage detention basins along Curry Creek.

Complete inundation of these vernal pools would occur during periods of prolonged heavy rainfall and are likely to last from one to seven hours. Complete inundation of these pools for this period of time is not likely to result in a significant degradation of the quality of habitat, as connection with the main channel would be brief before the water receded.

Field surveys indicate that of the total impacts to vernal pool crustacean habitat, indirect impacts would account for 9.57 acres. Indirect impacts on vernal pool crustacean habitat include possible disturbance resulting from passive recreation, changes to hydrological conditions such that precipitation runoff supplies are interrupted and prevent the pools from filling properly, or erosion of adjacent uplands that causes siltation of the pools. Additionally, after project construction, vernal pool crustacean habitat that is preserved, restored, or created on or adjacent to the site could be subject to further indirect impacts resulting from urban runoff, increased human access (i.e., proximity to development, trails, etc.), vandalism or other human disturbances, and an increase in exotic weed species. Maintenance activities, such as fire break maintenance, weed abatement, and construction and maintenance of trails and utilities, could also degrade habitat. Such activities could occur seasonally. These impacts would degrade vernal pool crustacean habitat. Indirect effects could also occur to vernal pools and other seasonal wetlands as a result of flows from stormwater outfall structures that discharge directly into open space areas (refer to Figure 4.12-3 [Location of PGWWTP Outfall in WRSP] in Section 4.12 [Hydrology and Water Quality]) in the northern and western part of the WRSP Area. These indirect effects would result from high velocity flows that could scour seasonal wetlands that are not accustomed to high velocity flows. In addition, the characteristics of the wetlands could change by introducing a year-round source of water. The applicant's engineers are currently working on designs for these outfalls that will both decrease flows and reduce or eliminate debris or other pollution from being deposited in the pools. Although the exact configuration of future outfall structures and a description of how they operate is not available at this time, one potential measure could include the construction of drainage swales between outfalls and receiving waters to divert flows away from high quality vernal pool habitat.

[138] Westpark/Fiddyment Ranch "Wetland Mitigation (Revised)" table, January 28, 2003, ECORP Consulting

Loss of potential habitat for vernal pool crustaceans federally listed as threatened or endangered and degradation of habitat for these species would be considered a **significant impact**.

Compliance with FESA would reduce impacts associated with the loss of federally listed vernal pool crustaceans and their habitat, and the loss and degradation of rare plant populations, by requiring any project that would result in the take of any federally listed threatened or endangered species to obtain authorization from the USFWS. In addition, the MOU would minimize the indirect impact of incidental take of vernal pool species resulting from future City growth. Further, MM 4.7-1 requires no net loss of wetlands. No net loss of vernal pool crustacean individuals and habitat could be achieved through the protection of their wetland habitat either on-site or at another off-site location in combination with the harvesting of soils containing the cyst bank of fairy shrimp egg cysts. This soil could then be used in the restoration and enhancement of vernal pools in the preservation area where it would establish the fairy shrimp and associated species in the new locations. As described in the CWA 404 application, the WRSP has been designed to incorporate substantial habitat preservation (see Table 4.7-3). The goal of the conservation strategy is to achieve no net loss through a combination of on-site avoidance and preservation, on-site enhancement and creation of nonvernal pool wetlands, along with the acquisition of off-site existing vernal pool complexes, off-site restoration of degraded vernal pool habitat, and purchase of vernal pool credits at an agency-approved mitigation bank. These wetlands, both on-site and off-site would be preserved and managed in perpetuity to provide for the long-term viability of the protected wetlands. The areas of potential off-site mitigation are shown in Figure 4.7-4. Additionally, the CWA 404 application for this project includes measures designed to ensure the long-term viability of the preserved wetlands. These measures include creation of contiguous connections with off-site preserve areas, the installation of high quality fencing around open space preserve area with signage describing the sensitivity of the habitat, and the implementation of an Operation and Management Plan with a financing mechanism to monitor the health of the preserve habitat, and to remediate any disturbance to the preserve. An annual report describing the monitoring activities and condition of the preserve will be prepared by the preserve steward and submitted to the resource agencies. With implementation of MM 4.7-1, this impact would be **less than significant**.

Remainder Area

A delineation of potential habitat for vernal pool crustaceans has not been conducted for the Remainder Area. However, based upon the similarity of the land to the WRSP and surrounding region, it is very likely that additional acres of potential vernal pool crustacean habitat exist within this area. Development within the Remainder Area would result in take of potential vernal pool crustacean habitat as well as degradation of habitat due to ongoing maintenance activities, urban runoff, erosion, human and

domestic animal access, and introduction of nonnative invasive plants. This would be considered a **significant impact**.

MM 4.7-3 would reduce impacts on vernal pool crustacean species. Once potential habitat is delineated, the project applicant shall retain a qualified biologist to conduct protocol level surveys for vernal pool crustaceans at the project site, or the applicant may assume presence within the site. If the results of the protocol level surveys indicate that federally listed vernal pool crustaceans are not present at the site, then no further mitigation would be required. However, if they are determined to be present, or if the project applicant chooses to forego surveying and assumes presence of vernal pool crustaceans at the site, MM 4.7-2 would ensure no net loss of habitat by using generally acceptable mitigation ratios and practices for loss of vernal pool crustacean habitat.[139] By requiring identification of potential habitat, and ensuring no net loss of habitat, MM 4.7-2 and MM 4.7-3 would reduce this impact to a **less-than-significant level**.

IMPACT 4.7-3:	LOSS OF RARE PLANT POPULATIONS.	
Applicable Policies and Regulations:	Federal Endangered Species Act	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.7-1 (Ensure no net loss of wetlands)	MM 4.7-2 (Wetland protection policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

The project area contains habitat for special-status plant species, particularly in vernal pools (refer to Table 4.7-3). Vernal pools represent potential habitat for dwarf downingia, legenere, and other special-status plants. Loss of special-status plant species that are known to occur on-site could result from grading and other ground disturbing activities related to development of the SOI Amendment Area.

West Roseville Specific Plan

The 33.91 acres[140] of vernal pools in the WRSP Area represent potential habitat for dwarf downingia, legenere, and other special-status plants (refer to Table 4.7-2). Both dwarf downingia and legenere have either been recently observed within, or have historic records within the WRSP Area. Surveys for special-status plant species that were conducted for the WRSP have documented the presence of dwarf

[139] Designation of Critical Habitat for vernal pool Species does not change these options.
[140] Westpark/Fiddyment Ranch "Waters of the U.S. Acreage" table, January 28, 2003, ECORP Consulting

downingia in vernal pools in the WRSP Area.[141] Additionally, historic records indicate that legenere occurs in the WRSP Area, although this species was not observed during the recent surveys.[142] Potential habitat for other special-status plant species, including wetland species such as Bogg's Lake hedge hyssop, slender orcutt grass, Sacramento orcutt grass, and Sanford's arrowhead, and upland species such as hispid bird's beak and big-scale balsamroot occurs within the WRSP Area. Although focused special-status plant surveys were conducted during the bloom period for these species, none of these special-status plant species were observed in the WRSP and thus no impacts to these absent species would be expected to occur.[143]

Implementation of the WRSP is anticipated to result in the direct loss of 13.80 acres[144] of vernal pools, which are potential habitat for dwarf downingia and legenere. Loss of these plants would occur as a result of grading and other ground disturbing activities related to the development of the WRSP Area. Additionally, indirect impacts would occur to 8.83 acres of vernal pools. Indirect impacts on dwarf downingia and legenere habitat could be caused by changes to hydrological conditions that result from grading or other topographic changes such that precipitation runoff supplies are interrupted and prevent the pools from filling properly, or erosion of adjacent uplands causes siltation of the pools. Loss of special-status plants would be considered a **significant impact**.

Compliance with FESA would reduce impacts associated with the loss of federally listed vernal pool crustaceans and their habitat, and the loss and degradation of rare plant populations, by requiring any project that would result in the take of any federally listed threatened or endangered species to obtain authorization from the USFWS. Protection, preservation, and replacement of special-status plants can be achieved through implementation of MM 4.7-1 (ensure no net loss of wetlands). Special-status plants would receive protection through the preservation, enhancement, or restoration and protection of potential habitat for these species. Additionally, transfer of topsoil from pools that are lost, to pools that are enhanced, recreated, or restored will preserve the seedbank for those plant species that occupy those pools that are lost as a result of the development of the proposed project. This type of soil transfer process is generally highly successful, and is readily accepted by the USFWS as appropriate mitigation for the loss of vernal pool habitat. Additionally, this type of restoration effort is required to contain

[141] Results of Surveys for Special-status Species in the Fiddyment/Placer 1600 Project Area by Miriam Green Associates, July 18, 2000; Wet-Season Surveys for Freshwater Invertebrates and Spring Surveys for Rare Plants for the Placer County Habitat Conservation Plan by Jones & Stokes Associates (July 2002)

[142] April 2002 Rare Plant Survey, West Roseville Specific Plan by URS (June 25, 2002)

[143] Results of Surveys for Special-status Species in the Fiddyment/Placer 1600 Project Area by Miriam Green Associates, July 18, 2000; Wet-Season Surveys for Freshwater Invertebrates and Spring Surveys for Rare Plants for the Placer County Habitat Conservation Plan by Jones & Stokes Associates (July 2002); April 2002 Rare Plant Survey, West Roseville Specific Plan by URS (June 25, 2002)

[144] Westpark/Fiddyment Ranch "Wetland Mitigation (Revised)" table, January 28, 2003, ECORP Consulting

success criteria acceptable to, and monitored by the USFWS, as well as the drafting of and compliance with a formal restoration plan. Implementation of MM 4.7-1 would reduce the severity of this impact to a **less-than-significant level**.

Remainder Area

Surveys for special-status plant species have not been conducted in the Remainder Area. However, this area is similar to the WRSP Area, so it is likely to contain suitable habitat for these species in the habitats that are present there. Loss of special-status plant species would be a **significant impact**. MM 4.7-2 requires that surveys for special-status plants be conducted prior to any development in the Remainder Area. If no special-status plants are determined to be present in the Remainder Area, then no further mitigation would be required. However, if special-status plants are determined to be present in the area, then the project applicant shall ensure that no net loss of special-status plant species will occur. This measure, in addition to the FESA, would reduce the impact on special-status plant species to a **less-than-significant level**.

IMPACT 4.7-4:	LOSS OR DEGRADATION OF HABITAT FOR WESTERN SPADEFOOT , A SPECIAL-STATUS SPECIES.	
Applicable Policies and Regulations:	Federal Endangered Species Act State Endangered Species Act California Fish and Game Code	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.7-1 (Ensure no net loss of wetlands); MM 4.7-4 (Relocate individual western spadefoots)	MM 4.7-2 (Wetland protection policies); MM 4.7-5 (Spadefoot protection policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

Within the project area, potential habitat for the western spadefoot includes vernal pools, seasonal wetlands, and adjacent grassland habitat. Impacts on this species would occur as a result of the loss of vernal pools, seasonal wetlands, and grassland habitat due to grading or other ground disturbance related to development of the SOI Amendment Area. This species is a state and federal species of concern and is fully protected pursuant to the California Fish and Game Code.

West Roseville Specific Plan

Although this species was not observed on site during recent surveys of the proposed site, Figure 4.7-5, West Roseville Specific Plan Western Spadefoot Toad Habitat, shows the locations of highly reliable

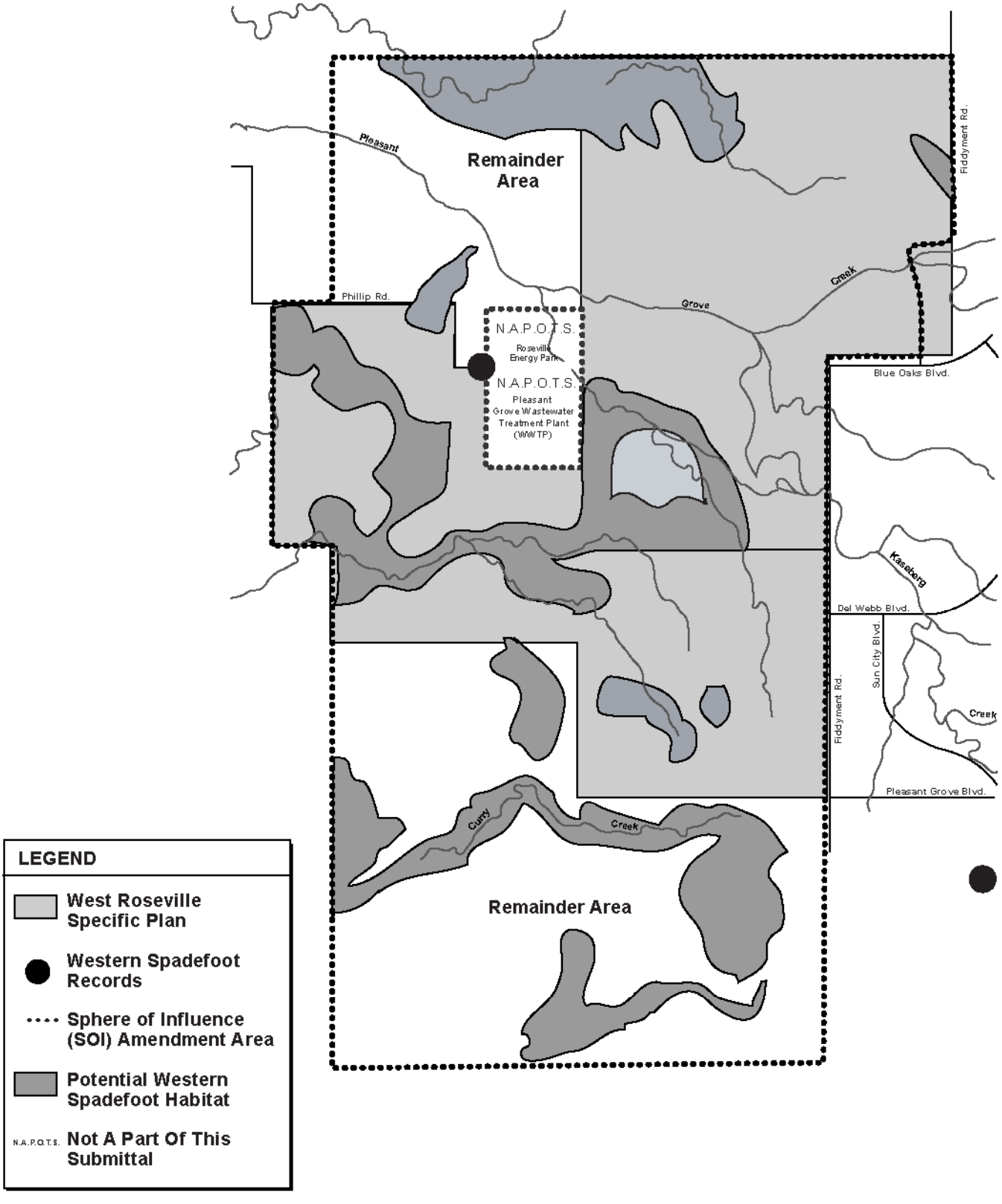


FIGURE **4.7-5**

West Roseville Specific Plan Western Spadefoot Toad Habitat

Not to Scale

10659-00

Source: EIP Associates, 2003

City of Roseville

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historic records that document the western spadefoot occurring within the WRSP Area[145] (refer to Figure 4.7-5). Furthermore, it highlights potential toad habitat within the WRSP Area. Because the western spadefoot has been sighted in the past, and suitable habitat occurs within the WRSP Area, it must be assumed that it could be present. Development on vernal pools, seasonal wetlands, and the adjacent habitat could result in the destruction of individual western spadefoot and/or its habitat. This would be considered a **significant impact**.

Compliance with CESA would reduce impacts associated with loss or degradation of habitat for western spadefoot, by regulating the take of state-endangered and state-threatened species and declaring that deserving species will be given protection by the State. In addition, compliance with FESA would reduce impacts associated with the loss or degradation of habitat for western spadefoot by requiring any project that would result in the take of any federally listed threatened or endangered species to obtain authorization from the USFWS.

Although suitable habitat exists for western spadefoot within the WRSP Area there is no standardized survey protocol for this species. The adults are very cryptic and difficult to find. However, surveys for vernal pool crustaceans are likely to pick up western spadefoot larvae if they have spawned in the given year that the surveys were conducted. MM 4.7-4 requires that the location of pools that are occupied by western spadefoot be determined through surveys conducted during the appropriate season (i.e., November through March when seasonal pools are inundated), by a qualified biologist. As no official western spadefoot survey protocol exists, the survey protocol shall be developed in consultation with CDFG. Those pools that are found to support western spadefoot shall be avoided wherever possible. If avoidance is not possible, then the CDFG shall be consulted to develop measures to capture any adult or larval western spadefoots, or western spadefoot egg masses, and relocate them to suitable unoccupied habitat that is approved by the CDFG. This measure will greatly enhance the survival rates of western spadefoots that are displaced during construction by relocating them to protected areas of unoccupied suitable habitat.

Additionally, implementation of MM 4.7-1, which includes preservation and protection of existing vernal pools, would protect individual western spadefoots by avoiding impacts on existing populations in areas that are designed as open space. Ensuring no net loss of wetlands would provide protection of potential habitat for western spadefoot by preserving or enhancing and protecting habitat that is capable of

[145] CDFG Natural Diversity Database, July 2002

supporting this species. MM 4.7-1 and MM 4.7-4 would reduce this impact to a **less-than-significant level**.

Remainder Area

Potential habitat for western spadefoot also occurs in the Remainder Area. Future development would likely result in further impacts on this species, including the loss of vernal pools, seasonal wetlands and the adjacent grassland habitat due to grading or other ground disturbance, which would be a **significant impact**.

MM 4.7-5 requires that the location of pools that are occupied by western spadefoot be identified through surveys conducted during the appropriate season, by a qualified biologist and the subsequent formation of a CDFG approved relocation plan if avoidance of occupied habitat is not possible. This measure would greatly enhance, to the extent possible, the survival rates of western spadefoots that are displaced during construction by relocating them to areas of suitable unoccupied habitat.

In addition, preservation and protection of existing vernal pools, as required by MM 4.7-2, would protect individual western spadefoots by avoiding impacts on existing populations in areas that are designated as open space. Additionally, ensuring no net loss of wetlands would provide protection for potential habitat for western spadefoot by preserving or enhancing, and protecting potential habitat that is capable of supporting this species. Implementation of the above mitigation measures as well as compliance with the Federal and State Endangered Species Act would reduce the severity of this impact to a level that is **less than significant**.

IMPACT 4.7-5:	DISRUPTION OF SWAINSON'S HAWK, BURROWING OWL, AND OTHER LEGALLY PROTECTED RAPTORS.	
Applicable Policies and Regulations:	State Endangered Species Act California Fish and Game Code Migratory Bird Treaty Act	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.7-6 (Avoid nesting sites)	MM 4.7-7 (Nest protection policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

Woodland and grassland habitats within the project area provide suitable nesting sites for legally protected raptor species, including Swainson's hawk, burrowing owl, Cooper's hawk, white-tailed kite, northern harrier, and ferruginous hawk among others. Disturbance resulting in active nest abandonment

or removal of an active nest or otherwise injuring, pursuing, or killing a Swainson's hawk, burrowing owl or other raptor would be prohibited under the Federal Migratory Bird Treaty Act, the California Endangered Species Act, and/or the California Department of Fish and Game Code.

West Roseville Specific Plan

Special-status species surveys in the WRSP Area have documented the presence of several legally protected raptor species, including Swainson's hawk, burrowing owl, Cooper's hawk, white-tailed kite, northern harrier, and ferruginous hawk. Woodland and grassland habitats in the WRSP Area provide suitable nesting sites for these species, among others. Two Swainson's hawk nests have been recorded in the riparian woodland along the Pleasant Grove Creek/Kaseberg Creek corridor, within one mile of the WRSP Area, and the oak and riparian woodlands in the WRSP Area provide suitable nesting habitat for many other legally protected raptor species. Additionally, three pairs of burrowing owls (and three single owls) have been observed in association with a series of ground squirrel burrow complexes in the grasslands near Phillip Road. Disturbance resulting in active nest abandonment, removal of an active nest or otherwise injuring, pursuing or killing a Swainson's hawk, burrowing owl or other raptor would be a **significant impact**.

Compliance with CESA would reduce impacts associated with the loss or degradation of habitat or disruption to Swainson's hawk, burrowing owl, and other legally protected raptors by regulating the take of state-endangered and state-threatened species and declaring that deserving species will be given protection by the State. In addition, compliance with the Migratory Bird Treaty Act would reduce impacts by prohibiting the take of any migratory bird listed, including nests, eggs or products, or the removal of any pertinent shrub or tree that could affect nesting.

To ensure that legally protected birds-of-prey are not taken during project construction, MM 4.7-6 requires that, when feasible, tree removals, or excavation near potential burrowing owl burrows occur during the period when these species are not nesting (September through February). If removal of trees or excavation near potential burrowing owl burrows during the nesting season is unavoidable, pre-construction raptor nest/burrowing owl surveys shall be conducted to determine whether or not legally protected raptor nests are present in trees designated for removal, or in areas slated for grading or other excavation. In the event that nests are present, appropriate protocols shall be developed in consultation with CDFG and followed during the removal or relocation of those nests. Implementation of these measures would reduce impacts on the nesting raptors to a **less-than-significant level** by preventing disturbance that would cause nest abandonment and subsequent loss of their young.

Remainder Area

Potentially suitable habitat for legally protected raptor species exists within the Remainder Area. Disturbance resulting in active nest abandonment, removal of an active nest or otherwise injuring, pursuing or killing a Swainson's hawk, burrowing owl or other raptor would be a **significant impact**. However, similar to the WRSP, compliance with the State Endangered Species Act, CDFG code, and the Migratory Bird Treaty Act would be required. MM 4.7-7 requires that surveys for special-status and other legally protected raptors be conducted, and if special-status or other legally protected raptors are determined to have active nests in the area, then a mitigation program that incorporates the protective measures set form in MM 4.7-6 must be developed in consultation with CDFG. Implementation of MM 4.7-7 would reduce impacts on the nesting raptors to a **less-than-significant level** by preventing disturbance that would cause nest abandonment and subsequent loss of young.

IMPACT 4.7-6:	LOSS OF GRASSLAND HABITAT.	
Applicable Policies and Regulations:	California Endangered Species Act California Environmental Quality Act	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.7-8 (Off-site and on-site preservation of lost grassland habitat)	MM 4.7-9 (Swainson's hawk habitat policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

Annual grassland habitat occurs throughout the project area as either a distinct habitat, or as an understory to the woodland habitats. These grasslands provide important foraging habitat for special-status and other legally protected raptors including Swainson's hawk, and a wide variety of other wildlife species that are known to occur in the region. CDFG considers the loss of foraging habitat for Swainson's hawk (which includes grasslands and certain agricultural croplands such as alfalfa) from within 10 miles of an active Swainson's hawk nest site, and the loss of foraging habitat within 500 feet of active burrowing owl nests, to be detrimental to the breeding success of these species. This habitat is also used by a number of other predatory bird species such as red-tailed hawk, white-tailed kite, loggerhead shrike, and a wide variety of other wildlife species.

West Roseville Specific Plan

Implementation of the WRSP would result in the loss of an estimated 2204.6 acres[146] of grassland habitat through grading and conversion to various urban land uses. Approximately 604.8 acres of the WRSP Area lie within 1 mile of active Swainson's hawk nests, and 1599.8 acres lies within 5 miles of these nests. Of the 604.8 acres of Swainson's hawk foraging habitat present in the WRSP Area from within one mile of an active nest site, 78.06 acres will remain in open space, leaving 526.74 acres that will be lost to development activities. Of the 1599.8 acres of Swainson's hawk foraging habitat that are present in the WRSP Area from within 1 to 5 miles of an active nest site (i.e., the remainder of the habitat at the site), 567.79 acres will remain in open space preserve, leaving 1032.01 acres to be lost to development. Due to the potential negative effects that loss of foraging habitat could have on nesting Swainson's hawk and burrowing owl, this impact would be considered **significant**.

Compliance with the requirements set forth in CEQA would reduce impacts associated with the loss of grassland habitat and substantial interference with the movement of resident and migratory species by requiring that grassland habitat is preserved or replaced and that crossings of stream corridors are designed such that they do not impede the passage of wildlife. In addition, compliance with CESA would reduce impacts associated with the loss of grassland habitat by regulating one take of state-endangered and state-threatened species and declaring that deserving species will be given protection by the State. Implementation of MM 4.7-8 would further reduce the severity of this impact to a level that is **less than significant** by providing protection for a quantity of similar habitat in southwestern Placer County (see Figure 4.7-4), in perpetuity, elsewhere in the region according to a CDFG-established mitigation formula.

Remainder Area

Approximately 2,314 acres[147] of annual grassland occurs within the Remainder Area. Approximately 42 acres of the Remainder Area lie within 1 mile of active Swainson's hawk nests. Approximately 2,314 acres of the Remainder Area (2,314 acres) lie within 5 miles of these nests. Loss of this habitat would be a **significant impact**. However, similar to the WRSP, compliance with CEQA and the CESA would be required, which would reduce impacts to grassland. In addition, MM 4.7-9 would reduce the severity of this impact to a level that is **less than significant** by providing protection for similar habitat in perpetuity.

[146] West Roseville Specific Plan—Swainson's Hawk Mitigation, Memorandum dated June 2, 2003, ECORP Consulting, Inc.
[147] West Roseville Specific Plan—Swainson's Hawk Mitigation, Memorandum dated February 3, 2003, ECORP Consulting, Inc.

IMPACT 4.7-7:	SUBSTANTIAL INTERFERENCE WITH THE MOVEMENT OF RESIDENT AND MIGRATORY WILDLIFE SPECIES.	
Applicable Policies and Regulations:	California Environmental Quality Act Section 1600 of the California Fish and Game Code City Floodplain Development Regulations City Improvement Standards NPDES Requirements	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.7-10 (Stream protection policies); MM 4.13-1(d) (Avoid light spill over into riparian habitat); MM 4.7-13(d) (Riparian habitat policies)	MM 4.7-11 (Stream protection policies); MM 4.13-1(d) (Avoid light spill over riparian habitat); MM 4.7-13(d) (Riparian habitat policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open-space areas by urbanization creates isolated "islands" of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open-space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, would not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information. Corridors mitigate the effects of this fragmentation by (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas or individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, or searching for mates, breeding areas, or cover). A number of terms have been used in various wildlife movement studies, such as "wildlife corridor," "travel route," "habitat linkage," and "wildlife crossing" to refer to areas in which wildlife move from one area to another. To clarify the meaning of these terms and facilitate the discussion of wildlife movement in this analysis, these terms are defined as follows:

- **Travel Route**—A landscape feature (such as a ridgeline, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is

generally preferred because it provides the least amount of topographic resistance in moving from one area to another. It contains adequate food, water, and/or cover while moving between habitat areas and provides a relatively direct link between target habitat areas.

- **Wildlife Corridor**—A piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat for a variety of species.
- **Wildlife Crossing**—A small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are manmade and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These often represent "choke points" along a movement corridor.

Within a large, open-space area in which there are few or no manmade or naturally occurring physical constraints to wildlife movement, wildlife corridors, as defined above, may not yet exist. Given an open-space area that is both large enough to maintain viable populations of species and provide a variety of travel routes (canyons, ridgelines, trails, riverbeds, and others), wildlife would use these "local" routes while searching for food, water, shelter, and mates, and would not need to cross into other large open space areas. Based on their size, location, vegetative composition, and availability of food, some of these movement areas (e.g., large drainages and canyons) are used for longer lengths of time and serve as source areas for food, water, and cover, particularly for small- and medium-size animals. This is especially true if the travel route is within larger open-space areas. However, once open-space areas become constrained and/or fragmented as a result of urban development or construction of physical obstacles, such as roads and highways, the remaining landscape features or travel routes that connect the larger open-space areas can "become" corridors as long as they provide adequate space, cover, food, and water, and do not contain obstacles or distractions (e.g., manmade noise, lighting) that would generally hinder wildlife movement.

The SOI Amendment area is traversed by three major stream corridors (Pleasant Grove Creek, Kaseberg Creek, and Curry Creek) and their associated tributaries. With the exception of the riparian channels, the site contains no distinctive landscape features that would be significantly different from, or more attractive as, movement corridors than those found in the surrounding landscape. Thus, the site is not expected to currently function as an important regional wildlife corridor or wildlife crossing because habitat similar to what is on-site is fairly common within the surrounding area. However, development of the SOI Amendment Area could impede the movement of wildlife by disturbing and/or blocking local

movement corridors such as the riparian strips that run though the site, that most-likely act as local travel routes. Additionally, those species that would normally use the grasslands as foraging area would not easily move across the future urbanized landscapes proposed for the site. They would then be restricted to the remaining areas of designated open space such as the streams and associated riparian channels. Thus, as a result of the project, these stream/riparian areas could "become" wildlife corridors through the urbanized landscape. Construction of stream crossings and other activities, as well as the introduction of artificial light, would alter the corridors and disturb the wildlife using them. The potential loss of local travel routes, and the potential future restriction of movement through the site via impacts to the stream/riparian open space corridor, are discussed below for each area.

West Roseville Specific Plan

Implementation of the WRSP could impede the movement of wildlife through the WRSP Area. As discussed above, those wildlife species that are adapted to live in grasslands and woodlands, or that move between isolated pockets of water, would not easily move across the future urbanized landscapes and would be relocated to, or concentrate their movements within the remaining open space, including the riparian/stream corridors.

Due to the type of habitat that exists on the WRSP Area, the only wildlife migratory or movement corridors that exist are the corridors along Pleasant Grove Creek, Kaseberg Creek, and the Curry Creek drainage, shown in Figure 4.7-2. The WRSP provides for an open space corridor along these drainages, which would allow free access through the site along Pleasant Grove Creek and Kaseberg Creek. However, the construction of the proposed weir across Curry Creek and a series of four culverts and four bridges for road crossings over Pleasant Grove Creek, Kaseberg Creek, and their unnamed tributaries could create barriers that could prevent wildlife passage along these corridors. Erosion and runoff during construction of these facilities would be controlled by best management practices (BMPs) as required by the City's Improvement Standards and NPDES General Permit (refer to Impact 4.12-4 in Section 4.12 Hydrology, Water Quality, and Groundwater). Nonetheless, alterations to the flow, bed, channel, or bank of any streams in the project area as a result of project improvements would affect the ability of the creek(s) to provide habitat for the wildlife species that depend upon them for feeding, cover, and nesting and thus could result in a loss of that habitat. Outdoor lighting can also have a negative effect on wildlife by interfering with nocturnal movement and causing disorientation, making individuals more vulnerable to predation or making it more difficult for them to capture prey. Passive recreational use along nature or bicycle trails may also have indirect impacts such as interfering with foraging, breeding, or movement. These impacts would be considered **significant**.

Compliance with the requirements set forth in CEQA would reduce impacts associated with the loss of grassland habitat and substantial interference with the movement of resident and migratory species by requiring that grassland habitat is preserved or replaced and that crossings of stream corridors are designed such that they do not impede the passage of wildlife. In addition, the City Floodplain Development Regulations would reduce impacts associated with floodplains, stream channels, and natural protective barriers.

Implementation of MM 4.7-10 would require the use of either bridges or culverts that are large enough that wildlife have enough space to pass through these road crossings without having travel over the road surface. MM 4.7-10 requires that the project applicant obtain a Section 1600 Streambed Alteration Agreement from the CDFG prior to any construction activities that could affect stream corridors. Specific measures would be developed during discussions with the CDFG, but may include measures such as using bridges instead of culverts, use of erosion control and bank stabilization measures, and restoration of stream corridor habitat that has been damaged due to the project's construction. In addition, MM 4.13-1(d) and 4.7-13(d) require that outdoor lighting be placed, designed, and directed to avoid spillover light into the riparian habitat of Pleasant Grove Creek, Kaseberg Creek, Curry Creek, and open space preserve areas. (Refer to Section 4.13 Aesthetics and Visual Resources for a detailed discussion of MM 4.13-1(d)). These measures would reduce the severity of this impact to a level that is **less than significant** through the maintenance of a clear corridor along Pleasant Grove Creek, Kaseberg Creek and their unnamed tributaries.

Remainder Area

Due to the type of habitat existing in the Remainder Area, potential significant wildlife movement corridors would be limited to Pleasant Grove Creek in the northern portion of the Remainder Area, and along Curry Creek in the southern portion of the Remainder Area. The City would require that these streams and their floodplains remain in open space in perpetuity, under some form or easement or other deed restriction, so these potentially significant corridors would be protected. However, the construction of new development is likely to require new creek crossings over Pleasant Grove Creek and Curry Creek, and their unnamed tributaries. Construction of berms, bridges, culverts or other activities that intrude upon the floodplain of these stream corridors would alter those corridors, affecting the ability of the creek(s) to provide habitat for the wildlife species that depend upon them for feeding, cover and nesting and thus could result in a loss of that habitat. As discussed above, night lighting would also affect wildlife. These impacts would be considered **significant**.

Requirements set forth under CEQA and the City Floodplain Development Regulations would reduce impacts associated with the movement of species by controlling the alteration of habitat areas, such as

grassland stream corridors, and floodplains. MM 4.7-11 provides for the development of stream protection policies, primarily through the Section 1600 Streambed Alteration Agreement process. Specific measures would be developed during discussions with the CDFG, but may include using bridges instead of culverts, use of erosion control and bank stabilization measures, and restoration of stream corridor habitat that has been damaged due to the project construction. In addition, MM 4.7-13(d) and MM 4.13-1(d) (refer to Section 4.13, Aesthetics and Visual Resources) would ensure that outdoor lighting does not spill over into creeks or open space preserves. These mitigation measure would reduce impacts on stream bed habitat in the Remainder Area by ensuring that stream corridors are protected against alterations that affect their ability to provide habitat for the wildlife species that depend upon them for feeding, cover, and nesting. Therefore, this would be a **less-than-significant impact**.

IMPACT 4.7-8:	LOSS OF OAK TREES OF GREATER THAN 6 INCHES DBH.	
Applicable Policies and Regulations:	Tree Preservation chapter of the Roseville Zoning Ordinance	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Short-term: Significant; Long-term: Less Than Significant	Short-term: Significant; Long-term: Less Than Significant
Mitigation Measures:	None available	None available
Significance after Mitigation:	Short-term: Significant and Unavoidable; Long-term: Less Than Significant	Short-term: Significant and Unavoidable; Long-term: Less Than Significant

Oak trees are a highly important biological resource because they support a diverse community of insects and wildlife in both their overstory (branches and leaves) and in their understory (grasses, brush, and limbs on the ground under the tree). Oak woodlands have been reduced in California to an extent that the loss of any oak trees must be considered a substantial loss of habitat for a number of native wildlife species. The City of Roseville has recognized the importance of the preservation and enhancement of oak woodlands by implementing the Tree Preservation Chapter of the Roseville Zoning Ordinance, which protects oak trees. Because oak trees take a relatively long time to reach a large size (>100 years) it is nearly impossible to replace the biological habitat value of a mature oak tree by planting numerous small, young oak saplings. An old oak tree provides much better habitat than an equivalent (by trunk diameter) number of young oaks. Figure 4.7-6, Oak Tree Locations, shows the locations of on-site oak woodlands.

Oak trees in the floodplain would be protected from development. However, oak trees outside of the floodplain could be removed. The City's Zoning Ordinance (Tree Preservation Chapter) would ensure that, oak trees removed for development would be replaced.

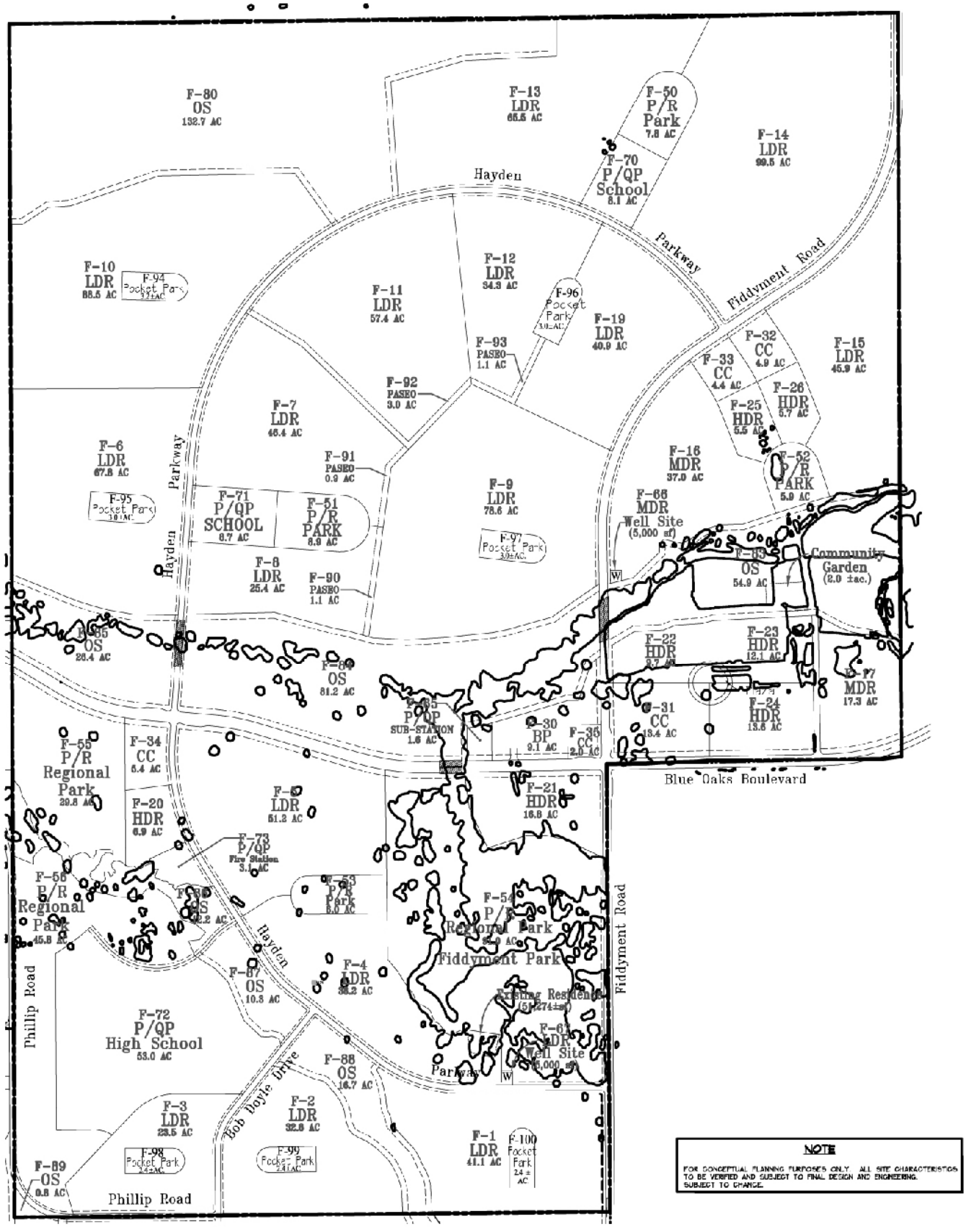


FIGURE **4.7-6**

Oak Woodland Locations

Not to Scale

10659-00

Source: Wood Rodgers, 2003

City of Roseville

EIP ASSOCIATES

Through implementation of the City's Tree Preservation Regulation, the long-term impact of the loss of native oaks over 6 inches dbh would be **less-than-significant**. However, the loss of oak trees would be a **short-term significant and unavoidable impact** because of the time needed for replacement trees to mature.

West Roseville Specific Plan

The WRSP proposes to minimize losses of oak trees by designating approximately 685 acres of the WRSP Area in open space preserves. These open space preserves would be located primarily along Pleasant Grove Creek and Kaseberg Creek where the greatest concentration of native oaks occurs. In addition, Fiddyment Park provides protection for a dense grove of existing oak trees. Therefore, the majority of the native oak trees at the site would be preserved. However, some removal of oak trees would be necessary to accommodate building footprints, roadways and other project related facilities in the northern section of the WRSP. It is estimated that the total loss of oak trees as a result of grading for residential and commercial development and infrastructure could be as high as 325 trees, or 5,812 inches. The Tree Preservation Chapter of the City's Zoning Ordinance requires the replacement of native oak trees with a dbh of 6 inches or greater that are lost as a result of development activities on an inch for inch basis. This tree replacement can be accomplished through planting of new trees on an inch for inch basis using the required number of fifteen (15) gallon sized native oak trees, or by paying an in-lieu mitigation fee that is based upon the required number of fifteen gallon sized trees, in either the Native Oak Tree Propagation Fund, or the Nonnative Tree Fund as described in Section 19.66.070—Oak Tree Planting and Replacement Program. At this time, the applicant proposes to plant oak trees in several areas along Pleasant Grove Creek. As shown in Figure 4.7-7, Oak Tree Mitigation Ares, approximately 45.6 acres would be planted, with 150 trees per acre, or 6,840 total trees (refer to Figure 4.7-7). In the long-term, the replacement trees would mature and replace the value of the trees that were lost. However, the replacement trees will not mature for many years, so in the short-term they would not provide the wildlife habitat or aesthetic value that existing mature trees do. Therefore, the loss of oak trees would be a **short-term significant and unavoidable impact**, but a **long-term less-than-significant impact**.

Remainder Area

Surveys to identify numbers and locations of native oak trees have not been conducted for the Remainder Area. However, information gathered during a review of aerial photography of the Remainder Area and through reconnaissance level visits to the site indicates that trees of any kind are limited largely to the Pleasant Grove Creek corridor, and possibly the Curry Creek corridor. Most of the Remainder Area is composed of annual grassland that contains no trees at all. Future development

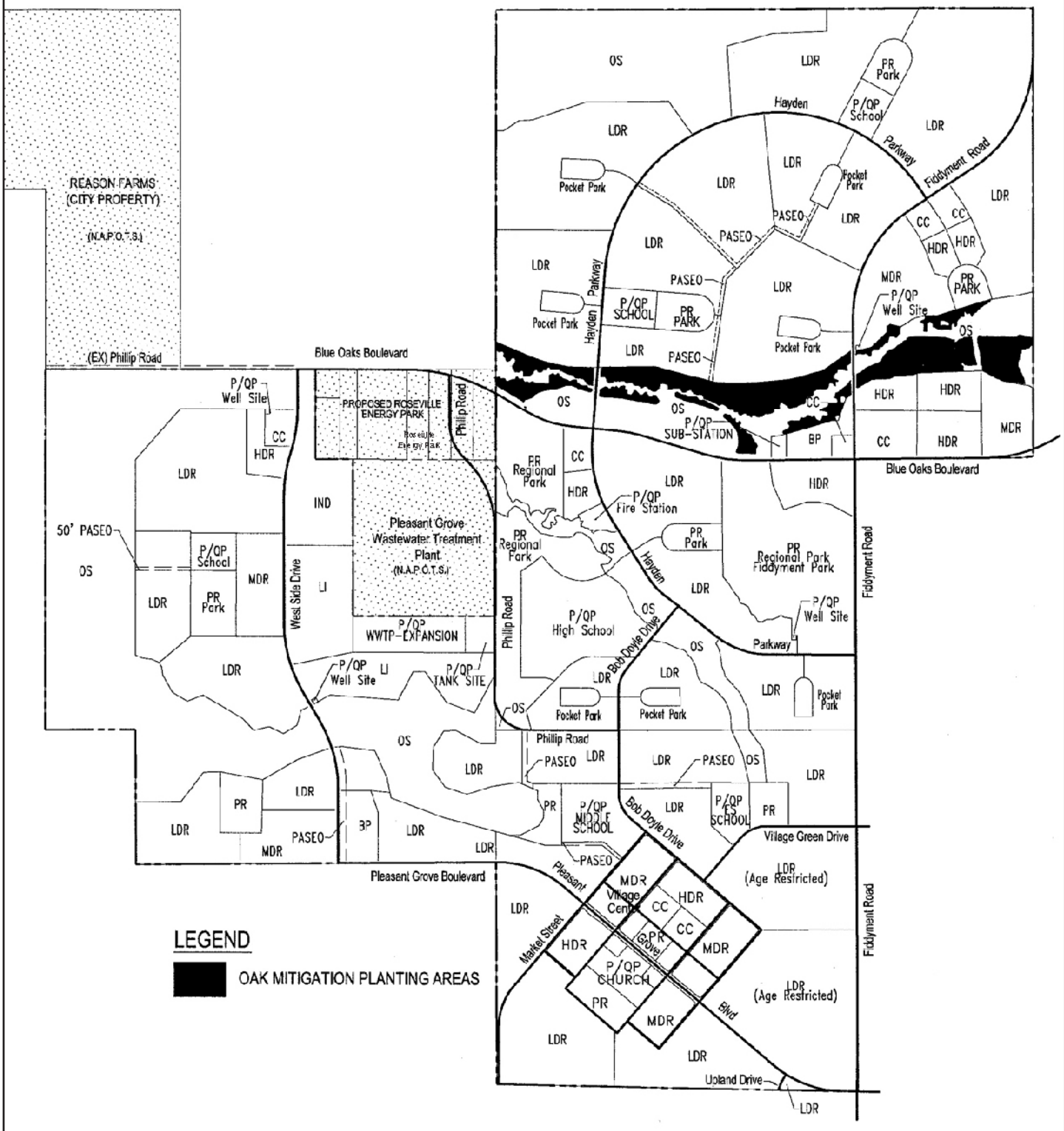


FIGURE **4.7-7**

Oak Tree Mitigation Areas

Not to Scale

10659-00

Source: Wood Rodgers, 2003

City of Roseville

EIP ASSOCIATES

would be required to comply with requirements for the designation of open space lands along natural stream courses. It is likely that most trees would be protected by buffer zones as dictated by the above regulations. At the least some trees would likely need to be removed for stream crossing and other infrastructure. If the Remainder Area is eventually annexed to the City of Roseville, the project applicant would be required to comply with the Tree Preservation Chapter of the Roseville Zoning Ordinance. According to the California Department of Fish and Game, "the outer edge of riparian vegetation is generally used as the line of demarcation between riparian and upland habitats." The transition between riparian vegetation and adjacent vegetation communities is usually abrupt and easily discernible, and is characterized by a decline in the canopy cover of riparian-associated woody shrubs and trees such as willows and cottonwoods, and an increase in herbaceous vegetation. CDFG generally recommends a riparian corridor setback of 100-feet or greater in order to protect stream channels and habitat.

IMPACT 4.7-9:	LOSS OF RIPARIAN HABITAT.	
Applicable Policies and Regulations:	City floodplain regulations Section 1600 of the California Fish and Game Code	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.7-12 (Buffer zones or barriers); MM 4.7-13 (Buffer policies)	MM 4.7-12 (Buffer zones or barriers); MM 4.7-13 (Buffer policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

As currently proposed, implementation of the proposed project would result in development that would occur within riparian habitat and stream corridors along some portions of Pleasant Grove Creek and other drainages. Some portions of the proposed project are located entirely within the riparian buffer area. This proximity presents the possibility of direct and secondary effects to the habitat due to removal of riparian habitat and/or spillover of human intrusion. Deterioration of riparian habitat could result from construction activities, intrusion of lighting, non-native invasive plant species, domestic animals, or human activity (i.e., jogging, walking, biking) into or along the riparian corridor. Trampling of riverbanks could occur when people descend or climb the banks. Increased trampling would remove vegetation directly or indirectly by causing soil compaction or erosion. Increased human recreational and residential uses could result in an increase in domestic animals, which could impact native wildlife by reducing habitat suitability and by increasing wildlife mortality. These impacts could also occur during construction of the proposed project in the vicinity of this area.

West Roseville Specific Plan

Implementation of the WSRP could result in the loss of riparian habitat in areas where proposed development is placed adjacent to the edge of riparian habitat. This loss of habitat would occur either directly during the ground disturbance related to the construction of the proposed project, or indirectly through illegal dumping, traffic, noise, glare and increased pedestrian and domestic animal access. This impact would be considered **significant**.

Implementation of sections 1600-1607 would reduce impacts associated with the blocking or degradation of stream corridors by regulating activities that would alter the flow, bed, channel, or bank of streams and lakes. Additionally, implementation of Chapter 9.80 of the Zoning Ordinance would control the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters. In addition, regulations would control fill, grading, dredging, and other development, which may increase flood damage.

MM 4.7-12 and MM 4.7-13 would reduce the severity of this impact to a level that is **less than significant** by requiring a minimum setback be maintained and through the maintenance of riparian habitat buffer zones along Pleasant Grove Creek, and Kaseberg Creek, and the implementation of riparian habitat protection policies.

Remainder Area

Riparian habitat in the Remainder Area only occurs along the Pleasant Grove Creek corridor in the northern portion of the Remainder Area. The City and CDFG would require that this corridor remain in open space because it is floodplain, so this potentially significant habitat would be protected. However, new development could occur adjacent to this sensitive habitat. Lack of an appropriate buffer zone between existing riparian habitat and development could result in loss of habitat that would occur either directly during the ground disturbance related to the construction of the proposed project, or indirectly through illegal dumping, traffic, noise, glare and increased pedestrian and domestic animal access. This impact would be considered **significant**.

Design of future projects shall require the use of buffer zones that comply with City of Roseville policies, between all development and the edge of riparian habitat. MM 4.7-12 and MM 4.7-13 would reduce this impact to a **less-than-significant level** by requiring the use of buffer zones or barriers to protect riparian habitat and the resident wildlife from loss or degradation resulting from the development of adjacent lands, and the implementation of riparian protection policies.

IMPACT 4.7-10:	LOSS OF BIOLOGICAL RESOURCES DUE TO CONSTRUCTION OF OFF-SITE INFRASTRUCTURE.	
Applicable Policies and Regulations:	None Applicable	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.7-1 (Ensure no net loss of wetland); MM 4.7-4 (Relocate individual western spadefoots); MM 4.7-6 (Avoid nesting sites); MM 4.7-8 (Off-site and on-site preservation of lost grassland habitat); MM 4.7-10 (Protect stream corridors); and MM 4.7-14 (Conduct appropriate surveys)	MM 4.7-2 (Wetlands protection policies); MM 4.7-3 (Vernal pool crustacean policies); MM 4.7-5 (Spadefoot protection policies); MM 4.7-7 (Nest protection policies); MM 4.7-9 (Swainson's hawk habitat policies); MM 4.7-11 (Stream protection policies); and MM 4.7-15 (Off-site survey policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

Development of the SOI project area would require infrastructure improvements outside of the SOI Amendment Area, such as extension of roadways; water, wastewater, and recycled water infrastructure; and electric and natural gas lines.

Preliminary surveys done by ECORP Consulting, Inc.[148] indicate that potential impacts from these activities include both direct and indirect impacts to

- Special status species, including state and federally threatened and endangered species
- Wetland and vernal pool habitat
- Oak trees
- Stream and riparian habitat

Although no formal focused surveys or wetland delineation have been performed within the Off-site Improvement Areas, preliminary field work indicated that approximately 6.60 acres of wetlands (including vernal pools and wet swales), 4.5 acres of ephemeral drainages, numerous oak trees, and habitat that is appropriate for up to 16 special status species occurs within the areas proposed for off-site improvements. Potential impacts are discussed below.

[148] Initial assessment of WSRP off-site improvements, ECORP Consulting Inc., August 22, 2003

West Roseville Specific Plan

Development of the WRSP would require infrastructure improvements outside of the WRSP Area, such as extension of roadways; water, wastewater, and recycled water infrastructure; and electric and natural gas lines. The off-site infrastructure would also require the construction of bridges and/or culverts to accommodate new or improved (i.e., widened) roadways. These improvements include the widening of Pleasant Grove Boulevard, which will require the construction of a bridge over the southern branch of Pleasant Grove Creek, east of Sun City Boulevard, a new bridge on Blue Oaks Boulevard over Coyote Creek, and another new bridge constructed on Blue Oaks Boulevard across the south branch of Pleasant Grove Creek west of Crocker Ranch Road (refer to Figure 2-12a, Off-Site Improvements (1 of 2), and Figure 2-12b, Off-Site Improvements (2 of 2), in Chapter 2 [Project Description]).

Other roadways that would be subject to off-site improvements include Pleasant Grove Boulevard between Woodcreek Oaks Boulevard and Fiddyment Road, Blue Oaks Boulevard and Phillip Road near their intersection with each other, Blue Oaks Boulevard between Fiddyment Road and Crocker Ranch Road, and Blue Oaks Boulevard between Woodcreek Oaks Boulevard and Foothills Boulevard. Construction of these road improvements would result in the loss of special-status species or their habitat. Although these resources have not yet been quantified in relation to the proposed impact area, preliminary surveys of these sites have documented the presence of wetlands including vernal pools, seasonal wetlands, ephemeral streams and marshes, native and heritage oak trees, and foraging habitat for Swainson's hawk and other protected raptor species.

In addition to the proposed off-site road improvements, there would be off-site power line easements that would extend south and east/west in the Remainder Area from the WRSP Area (refer to Figure 2 11, West Roseville Specific Plan Electric Substation and 60kV Powerline Easement). An aerial photograph study and preliminary survey of the proposed alignment has revealed the presence of up to one acre of seasonal wetlands that could include vernal pools, up to 3.5 acres of ephemeral drainages and an undetermined amount of foraging habitat for Swainson's hawk and other protected raptors. Construction and installation of these off-site improvements would be considered a significant impact.

MM 4.7-14 requires that surveys be conducted by qualified biologists prior to the construction of the off-site infrastructure facilities. The purpose of these surveys will be to determine the presence or absence of sensitive biological resources in areas that would be disturbed. If such resources are discovered, then appropriate mitigation measures as described in this document shall be extended to the off-site infrastructure areas (MM 4.7-1, MM 4.7-4, MM 4.7-6, MM 4.7-8, and MM 4.7-10). These measures would ensure that impacts on special-status species or their habitat that occur within the off-site infrastructure

areas would be reduced to a **less-than-significant level**, by requiring appropriate surveys and measures (including appropriate permits) to ensure protection and/or no net loss of such resources.

Remainder Area

Development of the Remainder Area would require infrastructure improvements outside of the Remainder Area, including diversion of water from the Sacramento River, extension of a north/south arterial from the Sacramento County Terminus at Baseline Road to West Side Drive, drainage improvements, and electrical, water, and sewer lines. Construction and installation of these off-site improvements could destroy special-status species and/or degrade or destroy their habitat. This would be a **significant impact**.

MM 4.7-15 requires that formal surveys be conducted by qualified biologists prior to the construction of the off-site infrastructure facilities. The purpose of these surveys would be to determine the presence or absence of sensitive biological resources in areas that will be disturbed. If such resources are discovered, then appropriate mitigation measures described throughout this section shall be extended to the off-site infrastructure areas (MM 4.7-2, MM 4.7-3, MM 4.7-5, MM 4.7-7, MM 4.7-9, and MM 4.7-11). This measure would ensure that impacts to special-status species or their habitat that occur within the off-site infrastructure areas would be **less than significant**, by requiring appropriate surveys and measures, including appropriate permits for and protection of such resources, and no net loss of habitat.

IMPACT 4.7-11:	CHANGES IN GENERAL PLAN POLICIES REGARDING FLOOD CONTROL FACILITIES IN OPEN SPACE.	
Applicable Policies and Regulations:	City of Roseville General Plan	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None required	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant

West Roseville Specific Plan/Remainder Area

Implementation of the proposed project, including a revision to the General Plan to add a new Open Space System Policy 10 (refer to Chapter 2 Project Description) would allow flood control facilities to be considered in open space areas, such as the detention basins proposed for Curry Creek. Such facilities could destroy or degrade habitat during grading and other ground disturbance. Impacts that could occur

include loss of wetlands, loss of special-status species habitat, and alteration of wetland/stream corridor hydrology.

Flood control facilities are not prohibited in open space areas under the current General Plan, so Policy 10 would not allow for a new form of habitat disturbance. Instead, the proposed policy makes explicit the ability to place such facilities in open space, and provides direction to use such facilities for compatible passive recreational use and resource preservation. Furthermore, any such facilities would be subject to environmental review and state and federal regulations, including the Federal Endangered Species Act (ESA), the California ESA, Sections 404 and 401 of the Clean Water Act and Section 1600 of the CDFG Code. The detention basins in Curry Creek have been included in the 404 permit application for the WRSP. Revisions to the City of Roseville General Plan that are a part of this project would not change these requirements. Therefore, impacts on biological resources that would result from the implementation of the revisions and additions to the City of Roseville's General Plan Policy would be considered **less than significant**.

IMPACT 4.7-12:	CONFLICT WITH THE PROVISIONS OF AN ADOPTED HABITAT CONSERVATION PLAN, NATURAL CONSERVATION COMMUNITY PLAN, OR OTHER APPROVED LOCAL, REGIONAL, OR STATE HABITAT CONSERVATION PLAN.	
Applicable Policies and Regulations:	Section 10(a)(2)(A) of the Engendered Species Act (HCP), California Fish and Game Code 2800-2840 (NCCP), and City/USFWS MOU	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	No Impact	No Impact
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	No Impact	No Impact

West Roseville Specific Plan/Remainder Area

The NCCP program is a cooperative effort between the CDFG, and numerous private and public partners. Its goal is to apply a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity in an effort to protect habitats and species. The program, which began in 1991 under the State's Natural Community Conservation Planning Act, is designed to identify and protect individual species that have already declined in number significantly. The primary objective of the NCCP program is to conserve natural communities at the ecosystem scale while accommodating compatible land use. The program seeks to anticipate and prevent the controversies and gridlock caused by species' listings by focusing on the long-term stability of wildlife and plant communities and including key interests in the process. The federal equivalent to this program is the Habitat Conservation

Plan, or HCP. HCPs resulted from 1982 amendments to the Endangered Species Act that stated that, as a condition of obtaining an "incidental take" permit (which allows the "take" of endangered species), the applicant must prepare a HCP which specifies, among other things, the actions the applicant will take to minimize and mitigate any adverse impacts to the species and available funding to implement these measures. This permit will be issued if the Secretary of Commerce or the Interior finds that the impacts to the species have been minimized and mitigated to the "maximum extent practicable," that the anticipated take will not jeopardize the species' continued existence, and that funding will be sufficient to implement the HCP.

In May 2000, the City and the U.S. Fish and Wildlife Service (USFWS) entered into a MOU to prepare a Habitat Conservation Plan (HCP) or equivalent. The purpose of the MOU was to minimize the indirect impact of incidental take of vernal pool species resulting from future City growth served by the then under construction regional PGWWTP. To accomplish this, the MOU commits the City to development of an "interim conservation strategy" to address City development that would be served by Phase I treatment plant operation (i.e., the initial capacity of 12 million gallon per day) and a HCP or equivalent for future City development served by Phase II operation (expansion beyond the initial 12 million gallons per day). At the time the MOU was signed, the planning area was restricted to existing City boundaries. However section 2.1 of the MOU recognizes that City boundaries may change in the foreseeable future to include lands annexed through an agreement with Placer County, in which case those annexed areas are intended to be incorporated into the "planning area" covered by the MOU.

As part of advancing the development of an interim strategy, consistent with the MOU, the City worked with the USFWS to assess the status of remaining vernal pool resources within the City. This included several mapping tasks to identify current development trends and remaining vernal pool resources. Based on the information gained through the mapping effort and ongoing dialog and written communication between City and USFWS staff, the USFWS concurred that nearly all remaining undeveloped land containing vernal pools had received federal permits for development through the Clean Water Act 404 process and, therefore, preparation of an HCP or equivalent to address remaining City development would not be necessary. The USFWS further determined that the conservation strategy could be developed and approved through the Section 7 consultation process in the context of permitting pursuant to Section 404 of the Clean Water Act. (USFWS Letter of June 28, 2001 – see Appendix G).

As described in the City's December 5, 2001 letter to the USFWS (Appendix G), the City is committed to developing a "vernal pool strategy" which is consistent with direction provided by the USFWS in their letter of June 28, 2001. This would include, in the context of an annexation project, development of an overarching management strategy to tie the existing City preserve system together under a broader more

unified framework. It also includes the commitment to develop an annexation area conservation plan in a manner that would not prejudice or conflict with the County's proposed larger scale conservation effort. This has been communicated to the WRSP landowners and was considered in their development of the WRSP's 404 permit application.

Through the 404-permit process the landowners have nearly completed a Section 7 Consultation with the USFWS.[149] The General Vernal Pool and Wetland Mitigation and Conservation Plan resulting from this consultation was conceptually accepted as complete on July 15, 2003, and a Biological Opinion from the USFWS is expected at anytime. Therefore, the proposed project is in compliance with "vernal pool strategy" as described above, and is consistent with USFWS direction. At this time the SOI Amendment Area is not located within a defined acquisition area of the County's proposed Placer Legacy. The mitigation program required for the MOU and this project are consistent with the goals of the County's program by achieving preservation of habitat (wetland, vernal pool, and raptor foraging habitat). Therefore, the proposed project would not conflict with the provisions of a proposed or adopted habitat conservation plan, natural conservation community plan, or other approved local, regional, or state habitat conservation plan, and there would be no impact.

Mitigation Measures

MM 4.7-1: *Ensure no net loss of wetlands (Impact 4.7-1 through Impact 4.7-4 and Impact 4.7-9 – WRSP)*

Consistent with the Clean Water Act, the WRSP shall achieve no net loss of wetlands. As used here, 'no net loss of wetlands" shall account for all wetlands impacted by the project, both directly (e.g., filled or drained) and indirectly (e.g., subjected to polluted and accelerated runoff, or damage caused by human or domestic animal access). No net loss may be achieved through on-site avoidance where practicable and desirable, on-site wetland construction where practicable and desirable, and/or off-site wetland construction, off-site wetland restoration, and off-site acquisition where approved by the permitting agencies. Restoration of wetland habitats is preferred to wetland creation because creation of wetlands introduces wetlands to an area historically upland in nature, whereas restoration re-establishes topographic and hydrologic conditions to a landscape that historically contained wetlands but has undergone land conversion. The benefit of the restoration approach, as opposed to wetland creation, is that because of the historic hydrologic footprint it is evident that the soils contain a restrictive layer which assists in the ponding of seasonal surface water.

[149] USFWS Letter Dated July 16, 2003, Conservation Measures for WestPark/Fiddyment Ranch Project (Corps## 200200666), Placer County, California, USFWS File # 1-1-03-TA-2485

The Clean Water Act Section 404 permit process (including a Section 7 Consultation under the Federal Endangered Species Act) is the standard method for developing mitigation for projects that affect wetlands and vernal pool species such as special-status plants, vernal pool crustaceans, and western spadefoots. Through this process, project applicants will be required to acquire the necessary permits and approvals to implement their proposed project while remaining in compliance with the Clean Water Act and the Federal Endangered Species Act. Mitigation, as outlined below in Table 4.7-3, would consist of a combination of the preservation of on-site vernal pool habitat and the acquisition of off-site property with existing vernal pool habitat for preservation.

Table 4.7-3 Wetland Impact Mitigation Analysis

Type of Wetland	Total Acreage	Direct Impact	Indirect Impact	Mitigation Requirements (acres)			
				Total Off-Site Preservation	Total Off-Site Restoration	Total On-Site Preservation	Total On-Site Restoration
ESA Wetlands							
Vernal Pool	33.91	13.80	8.83	21.45[2] 1.2[1]	36.43[1]	19.62	n/a
Vernal Swale	8.05	3.29	0.74	4.03[2]	7.32[1]	4.76	n/a
CWA Wetlands							
Wet Swales	17.39	4.17	n/a	n/a	n/a	13.22	5.421[3]
Seasonal Wetlands	3.92	1.33	n/a	n/a	n/a	2.59	1.729[3]
Emergent Marsh	0.62	0.62	n/a	n/a	n/a	n/a	0.806[3]
Subtotal	**63.89**	**23.21 +(0.49)[5] 23.70**	**9.57**	**26.68**	**43.75**	**40.193**	**7.956**
Total Mitigation Acres				***118.58***			

NOTES:
1. Provided in Yankee Slough
2. Provided in East Sheridan
3. Provided on-site within Pleasant Grove Creek
4. Provided on-site in areas set aside for permanent conservation as open space
5. City of Roseville Waste Water Treatment Plant Pipeline Impacts. Mitigated previously under USFWS Biological Opinion 1-1-10-F-0034.

SOURCE: ECORP Consulting, Inc., August 28, 2003

Additionally, mitigation shall include off-site creation and/or restoration of vernal pool habitat, and/or participation in a mitigation credit program from a wetlands mitigation bank approved by the Corps and the USFWS. These banks would collect a fee that is based upon the mitigation obligation of the client. That fee would then be used to create, enhance, or preserve vernal pool habitat at an established mitigation bank. The credits shall be in direct proportion to vernal pool losses on the property, as determined by a wetland or habitat delineation. The project applicants have identified appropriate off-site mitigation as shown in Figure 4.7-4. These areas include restoration of 43.75 acres at Yankee Slough and East Sheridan in Southwestern Placer County. This restoration will be a component of the compensation required for impacts to on-site habitat within the WRSP. The restoration of vernal pools on the Yankee

Slough property will not result in artificial habitat being created. Although degraded due to agricultural practices, the habitat can be mapped through the use of current aerial photos taken during the wet season, which assist in the identification of remnant pools. In addition, historical aerial photos taken of the site prior to the intensive agricultural practices show evidence of the hydrological footprint of the area and can be used as the baseline for the restoration effort.

In the mitigation of vernal pools that would be filled or otherwise disturbed, the landowners shall use harvested inoculum (i.e., the top few inches of soil containing the seed bank and vernal pool crustacean cysts) from on-site vernal pools. Topsoil from vernal pools contains both the seed bank for the plant species that occur in that individual pool and the vernal pool crustacean cysts (eggs) for those species that occur there. Removal of topsoil from harvested vernal pools shall comply with the most recent Corps and USFWS guidelines at the time of construction, or consist of removal of the top 2 inches of soil, following by the next 4 inches of soil, and placement of these layers in constructed vernal pools in reverse order (e.g., first the 4 inches followed by the 2 inches) to approximately reconstruct the natural soil horizon.

Following the filing by the project applicant of its Clean Water Act Section 404 application with the Corps, the Corps initiated its Section 7 (Endangered Species Act) consultation with the USFWS in November 2002. During this consultation process, the project applicant and the USFWS and the CDFG have focused on a number of alternative properties providing off-site mitigation for the wetland and Swainson's hawk habitat impacts resulting from the WRSP Area (refer to Figure 4.7-4). As a result of this a Wetland Impact Mitigation Plan has been developed, to mitigate for the loss of wetland habitat, and identify proposed off-site mitigation efforts.

The results of this Plan mandate that the applicant must obtain a California Department of Fish and Game 1603 Streambed Alteration Agreement and/or U.S. Army Corps of Engineers (Corps) Section 404 Permit prior to final approval of grading and site construction plans. Although only a small portion of the site is subject to Corps jurisdiction (e.g., water's of the U.S.), the potential direct indirect impacts to vernal pool and wetland habitat from grading necessitates the restriction of the issuance of any grading permit to after the completion of the 1603 and 404 permitting process. While the final conditions of the permits will be determined through coordination with these agencies, at a minimum the following actions shall be performed:

(A) Impacted wetland habitat (including vernal pools) that cannot be avoided, shall be replaced per a mitigation plan approved by the Corps and CDFG. Acreages listed in Table 4.7-3 shall be adhered to, and supplemented if additional impacts occur (e.g., in the Improvement Areas)

(B) Restoration shall be performed by a qualified wetland revegetation specialist and shall be conducted only on sites where soils, hydrology, and microclimate conditions are suitable for each wetland habitat type. First priority shall be given to areas that are adjacent to existing patches of native habitat, including the Yankee Slough.

(C) A wetland and vernal pool restoration/revegetation plan shall be prepared by a qualified specialist to include all measures for the revegetation and maintenance of on and/or off-site habitat, whether preserved or created. The plan shall include the following:

(1) The details and procedures required to prepare the restoration site for construction or planting (i.e., grading, soil preparations, soil stocking, etc.), including the need for a supplemental irrigation system, if any.

(2) The methods and procedures for the installation of the soil and plant materials.

(3) Guidelines for the maintenance of the mitigation site(s) shall be developed during the establishment phase of the restoration areas. The maintenance program shall contain guidelines for the control of nonnative plant species, the maintenance of any irrigation system or hydrology (if necessary).

(4) The restoration plan shall provide for monitoring, acceptable to the permitting State and federal agency(s), to evaluate the growth of the developing habitat and/or vegetation. Specific goals for the restored habitat shall be defined by quantitative and qualitative characteristics of similar habitats and plants (e.g., density, cover, species composition, structural development). The monitoring effort shall include an evaluation of not only the habitat installed, but the use of it by wildlife. Monitoring reports of the mitigation site shall be reviewed by the permitting State and federal agency(s).

(5) Contingency plans and appropriate remedial measures shall also be outlined in the plan should the restoration efforts fail to meet designated success criteria and goals.

Additionally, the CWA 404 application for this project includes measures designed to ensure the long-term viability of the preserved wetlands. These measures include creation of contiguous connections with off-site preserve areas, the installation of high quality fencing around open space preserve areas with signage describing the sensitivity of the habitat, and the implementation of an Operation and Management Plan with a financing mechanism to monitor the health of the preserve habitat, and to remediate any disturbance to the

preserve. An annual report describing the monitoring activities and condition of the preserve will be prepared by the preserve steward and submitted to the resource agencies.

As a result of the implementation of this plan, as outlined in Table 4.7-3, and associated measures detailed above, the project applicant would incur no further obligation for surveys, salvage notification, or seedbank salvage for areas covered by the Plan other than those surveys indicated under MM 4.7-14 and MM 4.7-15.

MM 4.7-2: *Wetlands protection policies (Impact 4.7-1 through Impact 4.7-4 and Impact 4.7-9 – Remainder)*

Prior to the adoption of any Specific Plans and/or other development proposals for the Remainder Area wetland delineations shall be conducted, and, if wetlands are present, the project achieves no net loss of wetlands. As used here, 'no net loss of wetlands" shall account for all wetlands impacted by the project, both directly (e.g., filled or drained) and indirectly (e.g., subjected to polluted and accelerated runoff, or damage caused by human or domestic animal access). No net loss could be achieved through on-site avoidance where practicable and desirable, on-site wetland construction where practicable and desirable, and/or off-site wetland construction, or off-site wetland restoration, and off-site acquisition where approved by the permitting agencies.

Where appropriate, the plans shall specify that special-status plant surveys be conducted for species that have a high probability to occur within areas of potential impacts (e.g., big-scale balsamroot and Hispid bird's beak), such that, if found, no net loss of special-status plants occur, and that landowners use harvested inoculum (i.e., the top few inches of soil containing the seed bank and vernal pool crustacean cysts) from on-site vernal pools in constructed wetlands. Additionally, if wetland habitat would be impacted methods listed to ensure no net loss of wetlands, as detailed in MM 4.7-1, would be applicable, and required.

MM 4.7-3: *Vernal pool crustacean policies (Impact 4.7-2 and Impact 4.7-9 – Remainder Area)*

Prior to the adoption of any Specific Plans and/or other development proposals for the Remainder Area a delineation of all potential vernal pool crustacean habitat and appropriate surveys shall be performed. Surveys for vernal pool crustaceans shall follow the January 19, 1995 (or more recent version, if available) USFWS *Guidelines for Surveys of the Endangered Conservancy Fairy Shrimp, Longhorn Fairy Shrimp, Riverside Fairy Shrimp, Vernal Pool Tadpole Shrimp, and the Threatened Vernal Pool Fairy Shrimp* to determine the extent of the potential habitat that is present in the proposed development area. For those areas of potential habitat that are determined not to be occupied by federally listed vernal pool crustaceans, no further mitigation would be required. If federally listed vernal pool crustaceans are determined

to occupy potential habitat that could be developed, MM 4.7-1 shall be implemented. Alternatively, the project applicant may assume that all potential vernal pool crustacean habitat is occupied and implement MM 4.7-1. In implementing MM 4.7-1, it shall be demonstrated in the project-level environmental document that the mitigation strategy would ensure no net loss of vernal pool crustacean habitat.

MM 4.7-4: Relocate individual western spadefoots (Impact 4.7-4 and Impact 4.7-9 – WRSP)

The location of pools that are occupied by western spadefoot shall be determined through surveys conducted during the appropriate season (generally February), by a qualified biologist. Those pools that are found to support western spadefoot shall be avoided if feasible. If avoidance is not feasible, then the CDFG shall be consulted to approve an adult or larval western spadefoots, or western spadefoot egg masses capture and relocation plan. Although there are no set protocol for this type of activity, the capture and relocation of reptile and amphibian species from areas that will be destroyed to areas of unoccupied suitable habitat is a fairly standard part of both USFWS and CDFG procedure for mitigating loss of population. When done in combination with habitat restoration and preservation, the procedure is known to be successful in preserving displaced populations. This measure would mandate that to the extent feasible, western spadefoots, which are displaced from pools that are destroyed during construction, would be relocated to protected areas of suitable habitat, thereby reducing impacts on western spadefoots to **less-than-significant levels**. MM 4.7-1, which requires no net loss of wetlands, would further reduce impacts on this species by, protecting or restoring its preferred breeding habitat (vernal pools and seasonal wetlands).

MM 4.7-5: Spadefoot protection policies (Impact 4.7-4 and Impact 4.7-9 – Remainder Area)

Prior to the adoption of any Specific Plans and/or other development proposals for the Remainder Area CDFG approved protocol surveys shall be conducted, if necessary, to determine the presence or absence of pools occupied by western spadefoot. These surveys shall be conducted during the appropriate season (generally February), by a qualified biologist. If western spadefoot is found during surveys, the Specific Plan and/or development plan shall provide a plan and/or policies to protect this species. The plan and/or policies shall provide for avoidance of those pools that are found to support western spadefoot wherever feasible. If avoidance is not feasible, then the CDFG shall be consulted to approve an adult or larval western spadefoots, or western spadefoot egg masses capture and relocation plan. In addition, MM 4.7-2, which would result in no net loss of wetlands would assist in the preservation of vernal pool and seasonal wetland habitat that this species requires for breeding. This measure would ensure the survival of western

spadefoots that are displaced from pools that are destroyed during construction by relocating them to protected areas of suitable habitat.

MM 4.7-6: Avoid nesting sites (Impact 4.7-5 and Impact 4.7-9 – WRSP)

To ensure that fully protected bird and raptor species are not injured or disturbed by construction in the vicinity of nesting habitat, the project applicant shall implement the following measures:

(a) When feasible, all tree removal shall occur between August 30 and February 15 to avoid the breeding season of any raptor species that could be using the area, and to discourage hawks from nesting in the vicinity of an upcoming construction area. This period may be modified with the authorization of the DFG; or

(b) Prior to the beginning of mass grading, including grading for major infrastructure improvements, during the period between February 15 and August 30, all trees and potential burrowing owl habitat within 350 feet of any grading or earthmoving activity shall be surveyed for active raptor nests or burrows by a qualified biologist no more than 30 days prior to disturbance. If active raptor nests or burrows are found, and the site is within 350 feet of potential construction activity, a fence shall be erected around the tree or burrow(s) at a distance of up to 350 feet, depending on the species, from the edge of the canopy to prevent construction disturbance and intrusions on the nest area. The appropriate buffer shall be determined by the City in consultation with CDFG.

(c) No construction vehicles shall be permitted within restricted areas (i.e., raptor protection zones), unless directly related to the management or protection of the legally protected species.

(d) In the event that a nest is abandoned, despite efforts to minimize disturbance, and if the nestlings are still alive, the developer shall contact CDFG and, subject to CDFG approval, fund the recovery and hacking (controlled release of captive reared young) of the nestling(s).

(e) If a legally protected species nest is located in a tree designated for removal, the removal shall be deferred until after August 30th, or until the adults and young of the year are no longer dependent on the nest site as determined by a qualified biologist.

(f) The project applicant, in consultation with the CDFG, shall conduct a pre-construction survey within the phases of the project site that are scheduled for construction activities. The survey shall be conducted by a qualified biologist to determine if burrowing owls are occupying the project site. The survey shall be conducted no more than three weeks prior to grading of the project site.

If the above survey does not identify burrowing owls on the project site, then no further mitigation would be required. However, should burrowing owls be found on the project site, the following measures shall be required.

(g) The applicant shall avoid all potential burrowing owl burrows that may be disturbed by project construction during the breeding season between February 15 and August 30 (the period when nest burrows are typically occupied by adults with eggs or young). Avoidance shall include the establishment of a 350-foot diameter nondisturbance buffer zone around any occupied burrows. The buffer zone shall be delineated by highly visible temporary construction fencing. Disturbance of any occupied burrows shall only occur outside of the breeding season (August 30 through February 15).

(h) Based on approval by the CDFG, preconstruction and nonbreeding season exclusion measures may be implemented to preclude burrowing owl occupation of the project site prior to project-related disturbance (such as grading). Burrowing owls may be passively excluded from burrows in the construction area by placing one-way doors in the burrows according to current CDFG protocol. The one-way doors must be in place for a minimum of three days. All burrows that may be occupied by burrowing owls, regardless of whether they exhibit signs of occupation, must be cleared. Burrows that have been cleared through the use of the one-way doors shall then be closed or backfilled to prevent owls from entering the burrow. The one-way doors shall not be used more than two weeks before construction to ensure that owls do not recolonize the area of construction.

MM 4.7-7: *Nest protection policies (Impact 4.7-5 and Impact 4.7-9 – Remainder Area)*

Prior to the adoption of any Specific Plans and/or other development proposals for the Remainder Area a plan and/or policies shall be developed and enacted to ensure that fully protected and raptor species are not injured or disturbed by construction in the vicinity of nesting habitat. The plan and or policies shall include the measures set forth above in MM 4.7-6.

MM 4.7-8: *Off-site and on-site preservation of grassland habitat (Impact 4.7-6 and Impact 4.7-9 – WRSP)*

- CDFG recommends that projects that will result in the loss of potential foraging habitat for Swainson's hawk (which includes grasslands and certain agricultural croplands such as alfalfa) within 10 miles of an active nest site provide mitigation for that loss. To the extent feasible, strategies for preserving on-site grasslands as raptor and migratory bird foraging habitat will be addressed in the O&M Plan prepared pursuant to the Section 404 Permit. Some of these strategies could include, but are not necessarily limited to, grazing for grassland management, monitoring for

biological values, and adaptive management. Mitigation for Swainson's hawk foraging habitat would concurrently mitigate for loss of habitat for a number of other wildlife species in the region such as burrowing owl, red-tailed hawk, white-tailed kite, northern harrier, and loggerhead shrike among many others.

Based upon consultation with CDFG, a Swainson's Hawk Grassland Habitat Mitigation Plan has been developed to mitigate for the loss of grassland foraging habitat. Areas within Yankee Sough and other as of yet an undermined southern Placer County site (possibly Reason Farms) would be preserved (see Figure 4.7-4). Up to 400 acres of the 878.743 additional Off-site Conservation Easement acres are proposed to be located at Reason Farms. Acquisition of the preservation acreages in two areas near Sheridan in southwestern Placer County detailed in Table 4.7-4 and Figure 4.7-4 would reduce impacts due to loss of grasslands to **less than significant**.

Table 4.7-4 Swainson's Hawk Grassland Habitat Mitigation Plan

Distance from Nest (miles)	Potential On-Site Foraging Habitat Proposed for Development (acres)	Swainson's Hawk Mitigation Ratio	Potential Swainson's Hawk Habitat Mitigation (acres)	On-Site Open Space Preservation (acres)[1]	Total Net Foraging Habitat to Be Acquired Off-Site (acres)[2]	Habitat Acquired at Yankee Slough (acres)	Additional Off-Site Conservation Easement (acres)
0–1	1,267.438	1.0:1	1,267.438			0	
1–5	934.967	0.75:1	701.225				
Total	***2,204.404***		***1,968.663***	***399.700***	***1,568.963***	***690.220***	***878.743***

NOTES:
1. Does not include any oak woodland habitat at Fiddyment Ranch, only grassland habitat.
2. Located within southern Placer County.
3. Includes WRSP open space parcels F-80 and W-81.

SOURCE: ECORP Consulting, October 30, 2003

MM 4.7-9: Swainson's hawk habitat policies (Impact 4.7-6 and Impact 4.7-10 – Remainder Area)

Prior to the adoption of any Specific Plans and/or other development proposals for the Remainder Area, the applicant shall conduct additional environmental review and implement measures to protect Swainson's hawk habitat at a ratio commensurate with the habitat area to be lost due to proposed development.

MM 4.7-10: Stream protection policies (Impact 4.7-7 and Impact 4.7-9 – WRSP)

To protect the sensitive habitat within the riparian area, and its potential use by wildlife as movement corridors, the project applicant shall provide for the protection of stream corridors on the WRSP Area from disturbance due to construction or obstruction (e.g., fill, culverts) through compliance with Section 1600 of the CDFG Code (Section 1600). Compliance with Section 1600 requires that the applicant enter into a Section 1600 Streambed Alteration Agreement prior to conducting any construction activities within a stream corridor (as defined in Section 1600), which sets forth mitigation measures that

the applicant must implement. These measures shall include, but not be limited to, the use of either bridges or culverts that are large enough that wildlife have enough space to pass through these road crossings without having to travel over the road surface, the implementation of bank stabilization measures, and/or restoration and revegetation of stream corridor habitat that has been damaged due to the project's construction. Furthermore, the recreational trails and garden area shall be lined by post and rail fence and signage would be used to direct trail and garden users to stay within the designated trail corridor or garden area. The trails and garden would also be closed after dark and no exterior lighting shall be used. Lastly, the implementation of MM 4.7-1, and MM 4.7-8, which would provide for the conservation of on-site open space and riparian areas around Pleasent Grove and Kaseberg Creeks.

MM 4.7-11: *Stream protection policies (Impact 4.7-7 and Impact 4.7-9 – Remainder Area)*

To protect the sensitive habitat within the riparian area, and its potential use by wildlife as movement corridors, project-related activities would be prohibited within a buffer zone adjoining the riparian area a minimum of 50 horizontal feet from the edge of the riparian vegetation or active channel, whichever is greatest. Buffers are established and managed to reduce the impact of adjacent land use. The design of a buffer serves several important functions: it preserves the stream's natural characteristics, protects water quality, and improves habitat for plants and animals on land and in the water. Any Specific Plans and/or other development proposals for the Remainder Area that involve the alteration or development of areas within the 50 foot riparian buffer areas shall demonstrate how the stream corridors, and the wildlife that use them, will be protected from disturbance due to construction or obstruction (e.g., fill, culverts), passive recreation, or other activities that would otherwise restrict or prevent the unobstructed movement of wildlife through them. This shall be demonstrated to the satisfaction of the CDFG or other jurisdictional bodies. Those plans or proposals shall require use of either bridges or culverts that are large enough that wildlife have enough space to pass through these road crossings without having travel over the road surface. Additionally future development within the Remainder Area would be required to maintain the stream corridors in perpetuity via a conservation easement or other deed restriction. The conservation easement shall stipulate permitted uses within this area, as well as provide a maintenance and enhancement plan that would list, among other maintenance and enhancement plans, the details, responsible parties, funding mechanisms, and schedule. Alternately, this measure may be implemented by obtaining a Section 1600 Streambed Alteration Agreement from the CDFG prior to any construction activities within stream corridors. Specific measures would be developed during discussions with the CDFG, but may include using bridges instead of culverts, erosion control and bank stabilization measures, and/or

restoration of stream corridor habitat that has been damaged due to the projects construction.

MM 4.7-12: Sensitive habitat buffer zones (Impact 4.7-10 – WRSP/Remainder Area)

The applicant shall avoid and preserve riparian vegetation within SOI Amendment Area to the extent feasible. Native streamside vegetation occurring in the riparian zone shall be protected and retained to filter groundwater runoff. In addition, a 50-foot buffer shall be established from the edge of the riparian vegetation or top of the bank, whichever is greatest, and, if necessary, enhanced by plantings of native species within the project site adjacent to the drainage. Essential infrastructure including maintenance road access and utilities may occur within the riparian buffer area. Buffers are established and managed to reduce the impact of adjacent land use. The design of a buffer serves several important functions: it preserves the stream's natural characteristics, protects water quality, and improves habitat for plants and animals on land and in the water. Project design would strive to site any drainage crossings in areas where riparian trees and other riparian vegetation are least dense. Additionally the stream corridors identified as wetlands mitigation areas shall be conserved in perpetuity via a conservation easement or other deed restriction. The conservation easement shall stipulate permitted uses within this area, as well as provide a maintenance and enhancement plan that would list, among other maintenance and enhancement plans, the details, responsible parties, funding mechanisms, and schedule. If impacts to riparian vegetation do occur as a result of the project, they shall be minimized to the extent feasible through the use of BMPs, and mitigated for at a ratio acceptable to the CDFG.

MM 4.7-13: Riparian habitat policies (Impact 4.7-10 – WRSP/Remainder Area)

To protect riparian vegetation within the SOI Amendment Area, the following policies shall be implemented:

(a) The project applicant shall provide for temporary fencing along the top of the bank during construction of those areas of the proposed project site adjacent to riparian habitat to discourage access to the riparian habitat by humans and pets.

(b) The project applicant shall provide for permanent fencing and/or a landscape barrier to discourage access to the riparian habitat by humans and pets. The fencing and/or landscape barrier shall be placed at the top of the bank of the creeks along those portions of the site adjacent to riparian habitat. The proposed recreation trail shall be on the project site side of the fence/landscape barrier. The fencing and/or landscape barrier shall be constructed of wood or other natural materials and shall allow for the viewing of the riparian habitat while discouraging access.

(c) Interpretive signs and displays shall be posted along the border of the riparian area to educate the public and route access away from sensitive areas. These informative signs will be posted at intervals of not less than 500 feet along the border with information regarding the objectives of creek and riparian habitat protection. Signs should also include information regarding the importance of restricting access to the riparian area by household pets. Such signs will be made of wood or similar natural material, and be maintained by the applicant.

(d) Lighting adjacent to riparian buffers should be shielded away from the riparian areas.

Implementation of MM 4.7-13 would reduce project impacts to riparian habitat to a *less-than-significant level* by ensuring *the* protection of riparian resources from encroachment or disturbance due to the increased number of pets and humans in the proposed project site.

MM 4.7-14: Conduct appropriate surveys (Impact 4.7-10 – WRSP)

Prior to construction of any off-site infrastructure, a qualified biologist shall perform general (detailed) and, if necessary, focused biological surveys of any undisturbed areas that would be affected by infrastructure development. Because infrastructure for the proposed project would be located in road rights-of-way, or undeveloped land similar to the project site, the biological resources that would be expected to occur would not differ substantially from those identified in this EIR. If it is determined that wetland resources or sensitive species would be impacted, MM 4.7-1, MM 4.7-4, MM 4.7-6, MM 4.7-8, and MM 4.7-10 shall be implemented, as appropriate to the resource.

MM 4.7-15: Off-site survey policies (Impact 4.7-10 – Remainder)

Prior to construction of any off-site infrastructure for Specific Plans and/or other development proposals for the Remainder Area, the City shall require that appropriate biological surveys have been conducted, and mitigation implemented. The surveys shall be performed, as needed, and within any undisturbed areas that would be affected by infrastructure development. Because infrastructure for the Remainder Area would be located in road rights-of-way, or undeveloped land similar to the project site, the biological resources that would be expected to occur would not differ substantially from those identified in this EIR. Therefore, if such resources are found, MM 4.7-2, MM 4.7-3, MM 4.7-5, MM 4.7-7, MM 4.7-9, and MM 4.7-11 shall be implemented, as appropriate to the resource.

4.8 CULTURAL RESOURCES

4.8.1 Introduction

This section of the EIR describes prehistoric and historic resources that could be damaged or destroyed as a result of development in the SOI Amendment Area. Prehistoric resources include sites and artifacts associated with the indigenous, non-Euroamerican population, generally prior to contact with people of European descent. Historical resources consist of structures, features, artifacts, and sites that date from Euroamerican settlement of the region.

Unless otherwise noted, information contained in this section was derived from the following source:

- *Cultural Resources Investigation of the Westpark/Fiddyment Ranch and Live Oak Enterprises/Signature Property Development Project, Placer County, California*, PAR Environmental Services, Inc. (May 2001).

This document is available for review at the City's Permit Center, 311 Vernon Street, Roseville, California. The results of the PAR analysis were based on a review of records at the Northwest Information Center, as well as site reconnaissance of the WRSP Area.

No specific concerns were raised in response to the Notice of Preparation related to cultural resources.

As discussed in Chapter 1 of this EIR, Introduction, this EIR evaluates the impacts of the WRSP, which would include a Sphere of Influence Amendment and annexation to the City, at a project-specific level. Because a Sphere Amendment is the only action proposed for the Remainder Area (that portion of the SOI Amendment Area outside of the WRSP), a program-level analysis is provided for the full SOI Amendment. In order to conduct the analysis, development assumptions are made for the Remainder Area (see Chapter 2, Project Description, for details). Figure 1-1 (SOI Amendment Area) in Chapter 1, Introduction, identifies the boundaries of the SOI Amendment Area, WRSP, and Remainder Area.

As discussed in the introduction to Chapter 4 of this EIR, Environmental Analysis, minor changes have been made to the proposed land uses for the WRSP Area since publication of the NOP. Overall the total amount of open space increased by 34.9 acres, primarily along the western boundary of the WRSP. However, the total amount of area to be disturbed is very similar to the prior land use plan. The open space corridors along Pleasant Grove Creek and Curry Creek have not changed and the historic Fiddyment Ranch Main Complex will remain in its current location and be integrated into the regional Sports Park.

4.8.2 Environmental Setting

Prehistory Background

The Native Americans who occupied the project vicinity at the time of Euroamerican contact (ca. 1850s) are known as the Nisenan, also referred to as the Southern Maidu. Several ethnographers have studied the Maidu people and generally agree that Nisenan territory included the drainages of the Bear, American, Yuba, and southern Feather rivers. Their permanent settlements were generally located on ridges separating parallel streams, either on crests, knolls, or terraces part way up these ridges.

A typical village consisted of several conical houses covered with bark slabs. The nearest ethnographic village in relationship to the project was called *Pichiku*. The name *Pich-u-gut* is also given for a village site in Roseville. The exact location of these villages has never been determined but many long time residents of Roseville indicate that a village was located in the vicinity of present-day Roseville Square off of Douglas Boulevard. Also, a village site has been identified and preserved at Maidu Park in Roseville.

The lower foothills and valley were rich in natural resources and the Maidu took advantage of many available foods. Acorns were important to their diet and were supplemented with seeds, nuts, berries, herbs, and fruit. Virtually every animal was hunted or trapped, excluding lizards, snakes, and grizzly bears. The Maidu were nomadic throughout much of the year, moving from place to place following game migration patterns and gathering seasonal plants.

In the 1860s, the owners of both the Fiddyment Ranch and Kaseberg Ranch, located a few miles north of the project site, allowed Maidu families to collect acorns, tubers, and grasshoppers on their property during the late summer and fall. These activities took place along Pleasant Grove Creek. Families traditionally went to special places to get acorns, and may have owned certain trees.

The Nisenan hunting and gathering cycle was altered drastically with the discovery of gold in Coloma in 1848. As miners poured into the Roseville and Auburn areas, the Native Americans were forced out of their winter villages, land was fenced, streams were silted, and food resources became increasingly difficult to procure. The Nisenan survived as best they could, working for Euro-Americans in mines or on ranches, panning for gold, and other activities.

History of SOI Amendment Area

The earliest Euro-American use of the general project vicinity was probably in the late 1840s, when Placer and Sacramento counties swarmed with men searching surface placer deposits for gold. By 1854, the area was sparsely settled and small-scale ranching had begun. Around this time, a man named Lee acquired

10,500 acres of land through government script and settled on Pleasant Grove Creek north of the project site. In 1856, he sold his parcel to Stephen A. Boutwell, who began to acquire other land near the California and Oregon Railroad (now Southern Pacific). Boutwell and his partner, William Dunlap, used their land for a sheep ranch, combining their holdings with those of a new partner, James W. Kaseberg, in 1864. During the 1870s, as many as 30,000 head of sheep were sheared on the ranch each year. Some of the first thoroughbred and trotting horses raised in California were on the Boutwell, Dunlap, and Kasberg ranch. All of these ranch sites are located less than five miles north of the SOI Amendment Area.

Property in the SOI Amendment Area vicinity followed this same pattern of rural land use. Settled in the 1850s and occupied by the Walter Fiddyment family since 1879, this property has been used for homestead and various agricultural operations for nearly 150 years.

Fiddyment Ranch

The Fiddyment family has a long history in the Roseville area. Elizabeth Jane Fiddyment came to the Sacramento area from Illinois in 1854, a widow with a four-year-old son, Walter Frederick Fiddyment. Upon arriving in the Elk Grove area in southern Sacramento County, she met and married a local farmer and stock-raiser, George Hill. The new family moved to the Pleasant Grove District in Roseville in 1856 to live and work with her sister's family on their farming operation. Around this time, Elizabeth's brother-in-law repaid a debt to her with a parcel of land, the first of what would eventually become extensive land holdings. This property was west of modern Roseville in the Pleasant Grove District. By the time of her death in 1912, Elizabeth reportedly owned over 13,000 acres in southern Placer County, between Lincoln and present-day Folsom Lake.

In 1879, Elizabeth's son, Walter, left his mother's home when he married Ella Bond. He bought 80 acres in the Pleasant Grove District, the first of 240 acres he eventually owned in the Plan Area. This property had been occupied as early as 1855, when government surveyors recorded farming activity there including fences and a field. Walter, 29, and Ella, 24, moved into a small cabin already on the property and Walter started farming. A year later their first child, Ira, was born. The Fiddyment family ranch, which dates to the 1870s, is located in the Fiddyment Ranch property near the eastern boundary of the WRSP Area. When the soil and natural irrigation proved too poor for farming, Walter turned to raising horses and mules, which also proved unprofitable. His next venture was raising cattle and sheep.

During the 1880s, the Fiddyments continued to expand their ranch. Ella's father, a brick mason, helped by building a smokehouse, cooler, reservoir, hog scalder, and chimneys on the house. The family reportedly modified and enlarged the original cabin on the property into a two-story ranch house. This

was necessary to accommodate their growing family, which eventually numbered seven children and probably farm hands as well.

By the turn of the century land north of Pleasant Grove Creek was used for rangeland. In the northeastern quarter of Section 13, a small complex of structures was built, including a barn, a bunkhouse for farm hands, and a concrete horse trough with a windmill. The red barn was a standard barn with eight-foot eaves and two-pole supports. The original windmill was a wooden structure on concrete footings. It was later replaced by a 1920s-era Aerodyne metal windmill, set on the same footings. The small complex also included a blue stone vat on a concrete pad. When side panels were attached, it created a pen where sheep were corralled for the treatment of hoof diseases.

Within the next few years, Walter diversified his farming income by acquiring commercial and residential property in Roseville. He purchased a half interest in G. W. Lohse's General Merchandising Store in 1906, buying out his partner in 1911 and changing the store's name to W. F. Fiddyment and Son.

Walter himself stopped farming in 1918. Around 1920, his son, Russell, started raising bronze turkeys at the ranch, supplementing the family sheep and cattle operations. While Walter had previously tried domesticating wild turkeys, Russell's was the first commercial turkey venture. At that time, Walter, 69, and Ella, 64, continued to live at the ranch with their adult children and a servant. Later in 1920, Russell married and moved with his wife, Cora, to a house in Roseville. In 1927, Walter and Ella left the ranch house and Russell and Cora moved in.

After Walter died in 1933, his sons continued agricultural land use on the property, although in independent operations consisting primarily of raising livestock and turkeys. Walter's son, Russell, became the head of the household, living in the farmhouse with his wife, Cora, and their four children. Russell and Cora continued to develop their turkey production and added chickens in the late 1930s. They switched from bronze to white turkeys in the 1940s. Russell gave John and David the chicken operation, which David bought out entirely around 1942.

A relative, Eric Fiddyment, built a turkey house and pens. One feature at the site was a cooking trough, moved from an unknown location elsewhere on the ranch. Water was boiled with grain and food scraps to make hog feed in the metal-lined brick trough. The family also moved a salvaged duplex from Camp Beale Air Force Base to the ranch for farm working housing.

The extended Fiddyment family has continued to be active throughout the ranch. The Fiddyments were using airplanes by the 1950s to assist in their livestock operations, leading to the construction of a private airstrip there. During the 1950s and 1960s there was an effort to grow rice irrigated by a ditch and well.

After this proved unsuccessful, that area was used as irrigated pasture until it was eventually allowed to return to a natural state.

During the early 1970s David Fiddyment began raising pistachios on a portion of the site near Pleasant Grove Creek. In 1971, he built a removable dam on Pleasant Grove Creek to impound irrigation water for use during the dry season. Today he runs a pistachio operation with a small roadside sales stand, continuing a long family tradition of working close to the land.

In the early 1990s, turkey and sheep ranching ended on the property. Today only cattle operations remain an active part of the Fiddyments' long history of ranching on the land. Walter's granddaughter, Cora Lee, and her husband, Earl Corin, live in the main house while John and Dana Corin and Eric and Denise Fiddyment also live on the family ranch property, continuing nearly 125 years of family ownership.

Cultural Resources Identified within the SOI Amendment Area

The SOI Amendment Area is considered sensitive for cultural resources. Known and potential resources are described below.

West Roseville Specific Plan Area

Non-Significant Resources

The entire WRSP Area was surveyed for cultural resources by PAR Environmental Services, Inc., in February and March 2001. During surveys, 48 recent, moved, or substantially modified objects or structures were identified, but found not to be significant historic resources, because of their age, lack of integrity, and/or displacement from their original context. Because they did not meet California Register or National Register of Historic Places (NRHP) criteria for significance, these items were not studied further.[150]

There is a small stand of Tree of Heaven located on the Fiddyment Ranch property north and west of Fiddyment Road. Stands of this type are sometimes associated with early Chinese encampments in the areas in the late 1800's and early 1900's. However, this particular stand of Tree of Heaven was established as a "volunteer" grove after 1930 according to the current property owner[151]. The Tree of

[150] PAR Environmental Services, Inc., *Cultural Resources Investigation of the Westpark/Fiddyment Ranch and Line Oak Enterprises/Signature Property Development Project, Placer County, California,* May 2001, page 13.
[151] John S. Fiddyment, personal communication, September 3, 2003

Heaven have no cultural association that could be potentially significant. Therefore, the impact of removal of the stand of Tree of Heaven would not be significant from a cultural resource standpoint.

Five isolated artifacts and features (non-formal sites) were also identified during the survey, including a structure pad, trash dump, historic debris redeposited in Pleasant Grove Creek, and windmill parts. Four of these resources were found to be ineligible for the California Register or NHRP, and were recorded. The fifth feature was identified as a potential portion of an emigrant trail, and required further study. The trail is discussed in more detail below.[152]

Eleven formal archaeological or architectural sites were also recorded during the survey. These sites included structures and/or artifacts related to agricultural operations and homes. With the exception of the Fiddyment Ranch complex, described below, these resources were related to sheep or turkey ranching, and did not meet California Register or NHRP criteria for historic significance. As discussed below, the Fiddyment Ranch complex was found to historically significant.

Potentially Significant Resources

Fiddyment Ranch Main Complex

The Fiddyment Ranch Main Complex is located in the southwest portion of the Fiddyment Ranch portion of the WRSP. The ranch complex today represents the headquarters of Walter and Russell Fiddyment's ranching and living operations. It is the oldest, continually operating family ranch in Roseville. The complex consists of a main house dating to the 1860's, with at least three renovations, a barn, brick cooler, brick smokehouse, and reservoir, all from the 1880's. Twentieth century features include a 1929 bunkhouse, 1930's windmill, 1948 turkey hatchery building, second house and 1949 garage. Photographs of the Fiddyment Ranch Complex are found in Figures 4.13-7 through 4.13-10 in Section 4.13, Aesthetics and Visual Resources. Archaeological features are also present within the complex. These include, but may not be limited to, a septic tank, chicken house and garage foundations, landfill as well as debris and a waterline ditch. The complex retains a high degree of integrity of location, setting, design, materials, workmanship, association and feeling. This complex appears to meet California and National Register Criterion 1 *(Footnote Criteria or refer to definition below)* for the role the ranch played in the social and economic development of the Roseville community, Criterion 3 for its architecture, and Criterion 4 for its archaeological potential.[153]

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[152] PAR Environmental Services, Inc., *Cultural Resources Investigation of the Westpark/Fiddyment Ranch and Live Oak Enterprises/Signature Property Development Project, Placer County, California,* May 2001, pages 15 through 17.

[153] PAR Environmental Services, Inc., *Cultural Resources Investigation of the Westpark/Fiddyment Ranch and Live Oak Enterprises/Signature Property Development Project, Placer County, California,* May 2001, page 20.

Old Road Segment

During the 2001 surveys, PAR identified an old road as a potential emigrant trail. During the February 2001 survey, the road alignment was noted and photographed. Within the WRSP Area , the road consists of a nearly unidentifiable dirt grade.[154]

The old road appears to be a wagon road that served several ranches in the mid to late 1800s. After 1908, the road was no longer depicted on maps. PAR could find no evidence that the road had served as an emigrant trail, nor was the road found to meet any of the criteria for listing on the California Register or the NHRP. The road was found to retain integrity of location, workmanship and design, but not setting, feeling or association. The setting and feeling of the road have changed considerably over time. In addition, integrity of association has been compromised by extensive modifications to the original transportation network of which the road was a component. The road was one of many minor local trails, was not associated with historically significant persons, is commonplace and not distinctive, and lacks archaeological components. For all of these reasons, the road is not considered historically significant.[155]

Potential Prehistoric Resources

A prehistoric archaeological site had been previously noted but not recorded north of Pleasant Grove Creek in the eastern portion of Fiddyment Ranch. The site reportedly contained remnants of stone tool manufacture. Groundcover prohibited a clear view of the area during the PAR survey, so the presence or absence of this unrecorded site could not be confirmed.[156]

Remainder Area

A review of the records at the Northwest Information Center found no formally recorded historic or prehistoric sites that have been identified in the Remainder Area. No specific cultural resource surveys have been conducted of the Remainder Area. There are some structures in the Remainder Area, including several residences north of Blue Oaks Boulevard and the dog kennel located south of Blue Oaks Boulevard, but they have not been evaluated for historic significance. The area's potential to contain subsurface historic or prehistoric sites or artifacts would be similar to the WRSP Area because the history of occupation and development in the Remainder Area is the same as in the WRSP Area due to the geographical, geologic, and hydrologic connections of the two areas.

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[154] PAR Environmental Services, Inc., *Historical Evaluation of the Fiddyment Ranch Road, Placer County, California,* August 2002, page 11.
[155] PAR Environmental Services, Inc., *Historical Evaluation of the Fiddyment Ranch Road, Placer County, California,* August 2002, page 12.
[156] PAR Environmental Services, Inc., *Cultural Resources Investigation of the Westpark/Fiddyment Ranch and Live Oak Enterprises/Signature Property Development Project, Placer County, California,* May 2001, page 21.

Paleontological Resources

There are three geologic units in the SOI Amendment Area: the Turlock Lake Formation, the Riverbank Formation, and Quaternary alluvium (see Section 4.6, Geology, Soils, and Seismicity). The Riverbank and Turlock Lake formations are classified as "terrace deposits." These deposits were laid down during mid-continental glacial episodes in the Plio-Pleistocene less than 600,000 years ago. As shown in Figure 4.6-1 (Geologic Map), the Riverbank Formation is present throughout much of the SOI Amendment Area. Although the Riverbank Formation in the west Roseville area has not been comprehensively surveyed for paleontologic resources,[157] construction activities in areas containing Riverbank Formation in the Sacramento area (e.g., during the construction of ARCO Arena) have yielded a number of important vertebrate animal fossils. These fossils included ground sloth, bison, horse, camel, antelope or deer, and mammoth, which were found about 13 to 30 feet below the surface. Plant fossils have also been found. While all of animals were widely distributed in North America during the Plio-Pleistocene, this discovery in the Riverbank Formation at the Arco Arena site is important in that it is one of a small number of sites in northern California that helps expand scientific knowledge about the range of animals and the general paleoecology of the Sacramento Valley.[158] The Turlock Lake Formation, small areas of which are found in the eastern part of the SOI Amendment Area, also has yielded animal fossils. Investigations in the Granite Bay area southeast of the SOI Amendment Area have uncovered horse bones and teeth from the Turlock Lake Formation, and other fossil fragments have been discovered in Roseville as well.[159]

4.8.3 Regulatory Setting

The treatment of cultural resources is governed by federal, State, and local laws and guidelines. There are specific criteria for determining whether prehistoric and historic sites or objects are significant and/or protected by law. Federal and State significance criteria generally focus on the resource's integrity and uniqueness, its relationship to similar resources, and its potential to contribute important information to scholarly research. Some resources that do not meet federal significance criteria may be considered significant by State criteria. The laws and regulation seek to mitigate impacts on significant prehistoric or historic resources. The federal, State, and local laws and guidelines for protecting historic resources are summarized below.

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[157] Richard Hilton, Sierra College, Department of Geology, personal communication, September 20, 2002.

[158] Richard P. Hilton, D. Charles Dailey, and H. Gregory McDonald, "A Late Pleistocene Biota from the ARCO Arena Site, Sacramento, California," *in PaleoBios* 20(1): 7-12, April 15, 2000.

[159] Paula J. Noble, Ph.D. and Richard P. Hilton, "Assessment of Paleontologic Resources of the Silverwood Project, Granite Bay, Placer County, California," July 10, 1997.

Federal

The National Historic Preservation Act of 1966

The National Historic Preservation Act of 1966 established the NRHP as the official federal list of cultural resources that have been nominated by State Offices for their historical significance at the local, State, or national level. Properties listed in the NRHP, or "determined eligible" for listing, must meet certain criteria for historical significance and possess integrity of form, location, and setting. Significance is determined by four aspects of American history or prehistory recognized by the NRHP Criteria, which are listed in Chapter 3 of this document under "Definitions of Historical Resources." Eligible properties must meet at least one of the criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character, the degree to which the original fabric has been retained, and the reversibility of changes to the property.

The Department of the Interior has set forth Standards and Guidelines for Archaeology and Historic Preservation.[160] These standards and Guidelines are not regulatory and do not set or interpret agency policy. A project that follows the Standards and Guidelines shall be considered mitigated to a less-than-significant level, according to Section 15064.5(b) of the California Public Resources Code.

State

California Register of Historic Resources (PRC Section 5020 *et seq.*)

State law also protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources in CEQA documents. A cultural resource is an important historical resource if it meets any of the criteria found in Section 15064.5(a) of the CEQA Guidelines. These criteria are nearly identical to those for the NRHP, which are listed in Chapter 3 of this document under "Definitions of Historical Resources."

The State Historic Preservation Office (SHPO) maintains the CRHR. Properties listed, or formally designated eligible for listing, on the NRHP are automatically listed on the CRHR, as are State Landmarks and Points of Interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

[160] The full title of the Standards and Guidelines is "The Standards for the Treatment of Historical Properties with Guidelines for Rehabilitating Historic Buildings.

California Senate Bill 297 (1982)

This bill addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the Native American Heritage Commission to resolve disputes regarding the disposition of such remains. It has been incorporated into Section 15064.5(e) of the State CEQA Guidelines.

California Environmental Quality Act

As described above, State law protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. Section 21084.1 of CEQA requires an environmental document to evaluate the potential effects of a project on a historical resource, as further defined in Section 15064.5(a) of the CEQA Guidelines.

Section 21083.2 of CEQA requires an environmental document to address archaeological resources if a project may have a significant effect on a unique archaeological resource. Under CEQA, a "unique archaeological resource" is defined by Section 21083.2(g) as

> An archaeological artifact, object, or site about which is can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
>
> (1) Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information
>
> (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type
>
> (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Sections 21803.2(b)–(f) describes mitigation for affected unique archaeological resources under CEQA. Mitigation includes preservation of the resource in-place, either through site planning or recording easements, as well as mitigation by excavation.

CEQA Guidelines

Section 15064.5 of the CEQA Guidelines defines historical resources for the purposes of CEQA, as described above under "Definitions of Historical Resources." Archaeological and paleontological resources may also be considered historical resources, as they can meet the criterion of yielding, or likely to yield, information important in history or prehistory. Section 15064.5 also explicitly includes significant effects on historical resources as significant environmental effects for the purposes of analysis, and provides criteria for analysis, as well as treatment of, historical structures and other resources, archaeological resources, and human burials.

Section 15126.4 of the CEQA Guidelines describes mitigation measures related to historical resources, including archaeological resources. Although the section includes provisions for mitigating effects on archaeological resources through excavation, similar to the provisions of Sections 21083.2(b)–(e) of CEQA, Section 15126.4(b)(3) of the CEQA Guidelines states, "public agencies should, whenever feasible, seek to avoid damaging effects on any historical resources of an archaeological nature." Further, Section 15126.4(b)(3)(A) establishes a clear preference for preservation in-place of archaeological resources, stating "[p]reservation in place is the preferred manner of mitigating impacts to archaeological sites."

Local

City of Roseville General Plan

The City of Roseville currently does not have a Historic Preservation ordinance nor has it conducted a Historic Resources Inventory. Significant cultural resources are shown on Figure V-4 in the City's General Plan.

The City of Roseville General Plan includes goals and policies for the preservation of cultural resources. Please see Appendix C for a complete list of all applicable City goals and policies.

West Roseville Specific Plan

The WRSP recognizes that the Fiddyment Ranch Complex would be preserved as a community facility for future use by the City. The complex would be owned by the City and could be used for meetings, weddings, receptions, and other events. Because the Fiddyment Complex would be owned and operated by the City, the WRSP does not include any specific measures that pertain to the reuse of this complex. Preservation of the Fiddyment Ranch Main Complex would be assured through implementation of MM 4.8-4(a) and MM 4.8-4(b) as well as MM 4.8-5 and MM 4.8-6.

4.8.4 Impacts and Mitigation Measures

Methods of Analysis

The baseline for the analysis in this section is existing conditions. Cumulative impacts on cultural resources are addressed in Chapter 5 (CEQA Considerations).

West Roseville Specific Plan

Evaluation of cultural resources was conducted by PAR Environmental Services, Inc (PAR). In addition to consultation with the North Central Information Center at California State University Sacramento,

previous environmental documents for projects in the area were reviewed, and full cultural resource field surveys were conducted for the WRSP Area. Areas of historic or prehistoric concern, particularly those where construction could occur as a result of WRSP development, were identified based on the work previously done by PAR for the WRSP Area. These areas have been described and mapped to identify individual sites and to indicate generalized geographic areas with high presence of these resources. The proximity of potential development areas to cultural resources has been identified. If development could occur on or near a cultural resource, measures for avoiding and/or recording the resource prior to excavation are discussed. Federal and state criteria for determining historical and cultural significance were previously discussed, under Regulatory Setting.

Remainder Area

Because no surveys have been conducted in the Remainder Area, and no development plans have been proposed, the analysis identifies what impacts could be expected given the history and character of the area.

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area would do any of the following:

- Create a substantial adverse change in the significance of an historical or archaeological resource, pursuant to section 15064.5 of the State CEQA Guidelines
- Directly or indirectly destroy a unique paleontological resource or unique geologic feature
- Disturb any human remains

Impacts

IMPACT 4.8-1:	DISTURB, DAMAGE OR DESTROY UNIDENTIFIED SUBSURFACE ARCHAEOLOGICAL RESOURCES DURING PROJECT CONSTRUCTION.	
Applicable Policies and Regulations:	Section 15126.4(b)(3) of the CEQA Guidelines	
	WRSP:	**Remainder:**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.8-1 (Cease work and consult with qualified archaeologist)	MM 4.8-2 (Include policies and conditions that require proper handling of resources); MM 4.8-3 (Conduct archaeological surveys)
Significant After Mitigation	Less Than Significant	Less Than Significant

West Roseville Specific Plan

As discussed in the Environmental Setting section, the field survey of the WRSP Area did not find evidence of prehistoric archaeological resources. An unrecorded prehistoric site in the northern end of the WRSP Area had been reported previously, but was not found during the recent field survey, possibly due to the extent of groundcover. This prehistoric site was located near Pleasant Grove Creek. The creek and its floodplain are designated open space in the WRSP, so the site may be undisturbed by future development. However, if the site extends beyond the floodplain, or is located in the path of facilities that would be placed in proximity to the creek (e.g., crossings, pipelines, trails), it could be damaged during grading and/or construction. In addition, there could be subsurface historic or prehistoric resources elsewhere in the WRSP Area. If encountered during grading, excavation and/or construction, such resources could be damaged, destroyed, or removed, resulting in a loss of integrity. This would be considered a potentially significant impact.

If evidence of historic or prehistoric artifacts or sites is uncovered during project development, MM 4.8-1 requires that all work cease within 100 feet of the find so that artifacts are not damaged by equipment. This is consistent with Section 15126.4(b)(3) of the CEQA Guidelines, which seeks to avoid damaging effects on archaeological resources. The measure would ensure that impacts on unknown cultural resources and human remains would be **less than significant**, by requiring appropriate study, handling and recordation of such resources. No further surveys or monitoring would be required with implementation of this mitigation measure.

Remainder Area

If the Remainder Area were developed at levels similar to those proposed in the WRSP, the effects would likely be similar, because, as with the WRSP Area, the Remainder Area could contain historic and/or prehistoric archeological resources along Pleasant Grove Creek and/or other drainages, as well as areas that were formally used for ranching or farming. Excavation, grading and construction activities in these areas could destroy such resources, if present. This would be considered a significant impact.

MM 4.8-2 requires that specific plans or other development proposals for the Remainder Area include policies or conditions that require proper handling of any subsurface cultural resources unearthed during project construction. This is consistent with CEQA Guidelines Section 15126.4(b)(3) MM 4.8-3 requires that specific plans or other development proposals for the Remainder Area also identify any known significant resources, based on field studies done by qualified archeologists. Areas with significant resources are to be retained in open space, if feasible. If preservation is not feasible, proper

recordation of the resources would be required. With these mitigation measures, impacts on cultural resources in the Remainder Area would be **less than significant.**

IMPACT 4.8-2:	REMOVAL OF HISTORICALLY SIGNIFICANT PROPERTIES AND/OR LOSS OF HISTORIC INTEGRITY OF SUCH RESOURCES.	
Applicable Policies and Regulations:	Section 1504.5 of the CEQA Guidelines Department of Interior Standards and Guidelines for Archaeology and Historic Preservation CEQA Sections 21803.2(b)–(f)	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.8-4 [(a) Retain Fiddyment Ranch Main Complex in current location, or (b) Retain portions of the Fiddyment Ranch Main Complex]; MM 4.8-5 (Record historically significant resources); MM 4.8-6 (Rehabilitate and reuse historically significant properties;)	MM 4.8-7 (Include policies to survey structures over 45 years of age); MM 4.8-8 (Properly record any identified historical resources); MM 4.8-9 (Include policies that require rehabilitation and reuse of historically significant properties)
Significance after Mitigation:	Significant and Unavoidable	Significant and Unavoidable

The Project Area contains a number of buildings that are over 50 years old, including structures in the WRSP portion that have been surveyed and found to be historically significant resources (the Fiddyment Ranch Complex). If any of the buildings or structures within the Remainder Area are over 50 years of age, and they meet the California Register or NHRP criteria for significance, they would also be considered historically significant. Potential impacts are discussed below.

West Roseville Specific Plan

Development of the WRSP would alter the context of the Fiddyment Ranch Main Complex, which appears to meet the criteria for significance as a historical resource established in section 15064.5 of the CEQA Guidelines. The Fiddyment Ranch Main Complex is located within the WRSP in the proposed Regional Sports Park, and adjacent to the proposed high school site. As discussed above, this complex appears to meet California and National Register criteria 1, 3, and 4. If the City retained some or most of the site, some structures or buildings may be removed or remodeled for use as public buildings. Structures or buildings that cannot be feasibly rehabilitated or reused may be removed or relocated. The loss or alteration of structures or buildings would change the character of the individual building or structure, as well as the ranch complex as a whole. Removal or relocation of the complex, if necessary, would separate it from its historic setting and result in the loss of the complex as a historic resource. These potential changes (removal, relocation, reuse, demolition) could reduce the integrity of the

complex so that it would no longer be considered a potentially historically significant property. This would be a significant impact.

The most effective approach to retaining the historic integrity of the Fiddyment Ranch Main Complex would be to retain the structures and buildings in their current location, as recommended by MM 4.8-4(a) so that their relationship to each other and their surroundings can be understood. If retained in the current location and rehabilitated to Secretary of Interior Standards, which ensure that renovation is compatible with historic properties (see MM 4.8-6), the impact would be reduced to a **less-than-significant** level because the complex would retain its historic character and integrity. The project applicant is proposing to donate the Fiddyment Ranch Main Complex to the City in its current location. The City's Parks Department is exploring the potential to use the facility for special events such as weddings. At this time, it is not certain which buildings specifically will remain and which buildings may be removed. Based on an architectural evaluation it is likely the City would retain all of Fiddyment Ranch Main Complex except for the barn, which is in a dilapidated state. In any case, recordation of the complex, as required by MM 4.8-5 and consistent with Sections 21803.2(b)–(f) of CEQA, whether the complex is retained in its entirety or modified, would ensure that information about the complex would be preserved for future study, partially reducing the impact of its reuse, loss or relocation.

It is not known what structures may be removed, although it is anticipated that the buildings removed could be barns or outbuildings; however, because historic buildings could potentially be removed under the WRSP, the impact is considered **significant and unavoidable.**

Remainder Area

The Remainder Area contains buildings that have not been surveyed, so it is not known whether historic resources are present. If any of the buildings or structures within the Remainder Area are over 50 years of age, and they meet the California Register or National Register criteria for significance, they would be considered historically significant. Development within the Remainder Area could affect historic resources, if present, through removal, relocation, reuse and/or substantially altering the context in which the historic resources occur. This is a significant impact.

MM 4.8-7 requires that specific plans or other development proposals for the Remainder Area document the age of all structures or buildings within the area proposed for future development. If any significant resources are identified, the preferable approach would be to retain them in their existing location. If retention is not feasible, and the resources needed to be relocated or destroyed, the impact could be significant and unavoidable because of the permanent loss of the resource and/or its context. Recordation of the resource, as required by MM 4.8-8, would reduce the impact by ensuring that information about it

was available for future use. Depending on the condition and importance of the resource, recordation may be adequate to reduce the impact to a less-than-significant level. Implementation of MM 4.8-9 would reduce impacts by requiring rehabilitation, restoration, or reconstruction of historic structures in compliance with the Secretary of the Interior's Standards of Rehabilitation. However, because of the presence of historic resources in the Remainder Area, and because the feasibility of preserving such resources is unknown at this time, this impact is considered **significant and unavoidable.**

IMPACT 4.8-3:	DISTURB UNKNOWN PALEONTOLOGICAL RESOURCES DURING SITE PREPARATION.	
Applicable Policies and Regulations:	Section 15126.4(b)(3) of the CEQA Guidelines	
	WRSP:	**Remainder:**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.8-10 (Cease work until review conducted by qualified paleontologist and recommendations implemented)	MM 4.8-11 (Include policies in specific plans to ensure the proper handling of paleontological resources)
Significant After Mitigation	Less Than Significant	Less Than Significant

There are three geologic units in the Project Area: the Turlock Lake Formation, the Riverbank Formation, and Quaternary alluvium (see Section 4.6, Geology, Soils, and Seismicity for more information). These formations, which consist of alluvial materials (gravel, sand, and silt) derived from older granitic and volcanic rocks in the Sierra Nevada to the east, could contain substantial numbers or unique types of invertebrate (marine), plant, or vertebrate fossils or other resources of paleontologic value.

In areas where the geologic formations are not exposed, paleontological resources would typically not be visible where the ground has not been disturbed and the formations exposed. However, they could be damaged or destroyed during site preparation, similar to archaeological resources. The potential for discovery and disturbance of paleontological resources would exist throughout the SOI Amendment Area. Potential impacts to paleontological resources are discussed below.

West Roseville Specific Plan

As discussed above, there are geologic units in the WRSP Area that could contain substantial numbers or unique types of invertebrate (marine), plant, or vertebrate fossils or other resources of paleontologic value. These resources could be damaged or destroyed during site preparation, similar to archaeological resources. This would be a potentially significant impact. Therefore, MM 4.8-10 requires that, if any evidence of fossils is discovered during excavation or grading, all work cease within 100 feet of the find.

This is consistent with Section 15126.4(b)(3) of the CEQA Guidelines, which seeks to avoid damaging effects on archaeological resources. Work would not resume until a qualified paleontologist is retained to review the find, and the paleontologist's recommendation for recordation and, if appropriate, preservation of the find have been implemented. Compliance with MM 4.8-10 would ensure the impact is reduced to a **less-than-significant** level.

Remainder Area

The Remainder Area also contains geologic formations that could contain paleontological resources that could be disturbed resulting in potentially significant impact. MM 4.8-11 would reduce impacts on such resources to a **less-than-significant** level by ensuring that appropriate study and treatment would occur before the resources could be destroyed. This is consistent with CEQA Guidelines Section 15126.4(b)(3).

IMPACT 4.8-4:	DAMAGE OR DESTROY HISTORIC OR PREHISTORIC RESOURCES DURING CONSTRUCTION OF OFF-SITE INFRASTRUCTURE.	
Applicable Policies and Regulations:	CEQA Sections 21803.2(b)–(f) Section 15064.5 of the CEQA Guidelines	
	WRSP:	**Remainder:**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.8-1 (Cease work and consult with qualified archeologist); MM 4.8-5 (Record historically significant resources); MM 4.8-6 (Rehabilitate and reuse historically significant properties); MM 4.8-10 (Cease work until review conducted by a qualified paleontologist and recommendations implemented); MM 4.8-12 (Conduct appropriate studies)	MM 4.8-2 (Include policies and conditions that require proper handling of resources); MM 4.8-7 (Include policies to survey structures over 45 years of age); MM 4.8-8 (Properly record any identified historic resources); MM 4.8-11 (Include policies in specific plans to ensure the proper handling of paleontological resources); MM 4.8-13 (Conduct appropriate studies)
Significant After Mitigation	Less Than Significant	Less Than Significant

Development of the Project Area would require off-site infrastructure improvements, including diversion of the Sacramento River (for the Remainder Area), roadway expansion and/or extensions, drainage improvements, and electrical, water, and sewer lines. Construction and installation of off-site improvements could result in disturbance of historic or prehistoric resources. Such resources could be damaged, destroyed, or removed, resulting in a loss of integrity if encountered during grading, excavation and/or construction. Potential impacts are discussed below.

West Roseville Specific Plan

Development of the WRSP Area would require infrastructure improvements outside of the WRSP project area, such as extension of water, wastewater, and power lines, drainage infrastructure and easements, and roads. In most cases, off-site infrastructure would be located within existing or planned roadway rights-of-way, and the potential for cultural resources to occur would have been addressed during the planning of those roads. However, in some cases, new infrastructure may be required in areas that are not planned for development, or have not been subject to environmental review. Because the alignments for such off-site infrastructure have yet to be determined, surveys have not been conducted. Therefore, this analysis assumes that historic resources (both subsurface and buildings), prehistoric resources (primarily subsurface), and/or paleontological resources could be located within areas that would be disturbed during construction of off-site infrastructure. If encountered during grading, excavation and/or construction, such resources could be damaged, destroyed, or removed, resulting in a direct loss and/or loss of integrity. This would be a potentially significant impact.

MM 4.8-12 requires that appropriate studies be conducted prior to construction of off-site infrastructure, and that if any prehistoric or historic resources are found that they be evaluated for significance, and avoided, preserved and/or recorded as appropriate. This is consistent with Section 15064.5 of the CEQA Guidelines (for determining significance) and 21803.2(b)–(f) CEQA (regarding preservation and recording). In addition, MM 4.8-1, MM 4.8-5, MM 4.8-6, and MM 4.8-10 would ensure that historic resources are appropriately recorded, and that work cease if cultural resources are discovered during construction, until such resources can be evaluated and treated as warranted by their significance. These mitigation measures would reduce this impact to a **less-than-significant** level.

Remainder Area

Like the WRSP, development of the Remainder Area would require infrastructure improvements outside of the Remainder Area, including diversion of the Sacramento River, roadway improvements, drainage improvements, and electrical, water, and sewer lines. Construction and installation of these off-site improvements could damage, destroy, or remove such cultural resources, resulting in a loss of integrity if encountered during grading, excavation and/or construction. This is considered a potentially significant impact.

MM 4.8-13 requires that appropriate studies be conducted prior to construction of off-site infrastructure, and that if any prehistoric or historic resources are found, that they be evaluated for significance, and avoided, preserved and/or recorded as appropriate. In addition, MM 4.8-2, MM 4.8-7, MM 4.8-8, and MM 4.8-11 would ensure that historic resources are appropriately recorded, and that work cease if

cultural resources are discovered during construction, until such resources can be evaluated and treated as warranted by their significance. These mitigation measures would reduce this impact to a **less-than-significant** level.

Mitigation Measures

MM 4.8-1: *Cease Work and Consult with Qualified Archaeologist (Impacts 4.8-1 and 4.8-4—WRSP)*

Should any cultural resources, such as structural features, any amount of bone or shell, artifacts, human remains, or architectural remains be encountered during any subsurface development activities, work shall be suspended within 100 feet of the find, and the City of Roseville shall be immediately notified. At that time, the City shall coordinate any necessary investigation of the site with qualified archaeologists as needed to assess the resource and provide proper management recommendations. Possible management recommendations for important resources could include resource avoidance or data recovery excavations. The contractor shall implement any measures deemed necessary for the protection of the cultural resources. In addition, pursuant to section 5097.98 of the State Public Resources Code, and section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

MM 4.8-2: *Include Policies and Conditions That Require Proper Handling of Resources (Impacts 4.8-1 and 4.8-4—Remainder)*

Specific Plans and/or other development proposals for the Remainder Area shall include policies and/or conditions that require proper handling of any subsurface cultural resources unearthed during project construction. The policies and/or conditions shall provide that, if any cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains, are encountered during any development activities, work shall be suspended within 100 feet of the find, and the City of Roseville shall be immediately notified. At that time, the City shall coordinate any necessary investigation of the site with qualified archaeologists as needed to assess the resource and provide proper management recommendations. If the find is determined to be an historical or unique archeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures and mitigation will be made available. Possible management recommendations for important resources could include resource avoidance or data recovery excavations. The contractor shall implement any measures deemed necessary by the archeologists for the

protection of the cultural resources. In addition, pursuant to section 5097.98 of the State Public Resources Code, and section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

MM 4.8-3: Conduct Archeological Surveys (Impact 4.8-1—Remainder)

Specific Plans and/or other development proposals for the Remainder Area, shall identify known and/or potential archaeological sites, based on field surveys of the area proposed for development conducted by a qualified archaeologist as part of the specific plan environmental review process. If significant resources or significant archaeological sites are present, the Specific Plan and/or development proposal shall designate the area surrounding the site as open space, as feasible. If retention of such resources is not feasible, recordation of the sites shall be required, along with treatment as is recommended by the archaeologist after consultation with SHPO and, if the find is prehistoric, the Native American Heritage Council.

MM 4.8-4 (a): Retain Fiddyment Ranch Main Complex (Impact 4.8-2—WRSP)

The WRSP calls for the preservation of the integrity of the Fiddyment Ranch Complex (the main ranch house and associated outbuildings) as a historical resource within the Regional Soccer Complex. To ensure its preservation the retention of the Fiddyment Ranch Main Complex is included as a mitigation measure.

Before planning of the park site, the City will evaluate buildings and structures as significant resources and treated in accordance with the Secretary of Interior Standards for Preserving, Rehabilitating and Reconstructing Historic Buildings, which ensure that any renovation is compatible with historic properties.

MM 4.8-4 (b): Retain Portions of the Fiddyment Ranch Main Complex (Impact 4.8-2—WRSP)

If any future specific proposals propose altering or removing any part of the existing Fiddyment Ranch Main Complex (e.g., removing buildings), the project applicant shall record the resource prior to issuance of a demolition permit by the City (see also MM 4.8-5) and shall be required to consult with an architectural historian prior to removal of any buildings within the complex.

MM 4.8-5: Record Historically Significant Resources (Impacts 4.8-2 and 4.8-4—WRSP)

For any historically significant resource, including the Fiddyment Ranch Main Complex, the record of the building shall be prepared by the Project Applicant prior to issuance of a demolition permit. In addition, the record shall comply

with the National Parks Service standards [Historical American Building Surveys (HABS)]. A copy of the record shall be deposited with the State Office of Historic Preservation (SHPO). The appropriate level of recordation shall be determined in consultation with SHPO. Recordation shall include:

- The development of site-specific history and appropriate contextual information regarding the historic resource; in addition to archival research and comparative studies, this task could involve limited oral history collection;
- Accurate mapping of the resource, scaled to indicate size and proportion of each structure;
- Architectural descriptions;
- Photodocumentation in both still and video formats; and
- Recordation of measured architectural drawings.

MM 4.8-6: Rehabilitate and Reuse Historically Significant Properties (Impacts 4.8-2 and 4.8-4—WRSP)

Prior to approval of reuse and/or alteration if the Fiddyment Ranch Complex, an architectural historian shall review the proposal and provide recommendations to assure that the integrity of the complex is retained. If adaptive reuse of the buildings is an option, the exterior of the historic properties should be rehabilitated and adaptively reused in accordance with the Secretary of the Interior's *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (U.S. Department of the Interior, National Park Service, 1992 [*Standards*]. Finish materials, case work, and trim on the interior should be restored and/or reused where feasible.

MM 4.8-7: Include Policies to Survey Structures Over 45 Years of Age (Impacts 4.8-2 and 4.8-4—Remainder)

The project applicant(s) for Specific Plans and/or other development proposals for the Remainder Area shall document the age of all structures or buildings within the area proposed for development (including areas proposed to remain in open space). If any buildings or structures are over 45 years of age, a qualified architectural historian or similar professional shall assess their historic significance. If feasible, historically significant structures, buildings or complexes shall be retained in their present location.

MM 4.8-8: Properly Record Any Identified Historical Resources (Impacts 4.8-2 and 4.8-4—Remainder)

Specific Plans and/or other development proposals for the Remainder Area shall require that, if any historically significant resource is identified, the project applicants shall be required to prepare a record of the building in

compliance with to National Parks Service standards [Historical American Building Surveys (HABS)]. A copy of the record shall be deposited with the State Office of Historic Preservation (SHPO). The appropriate level of recordation shall be determined in consultation with SHPO. Recordation shall include

- The development of site-specific history and appropriate contextual information regarding the historic resource; in addition to archival research and comparative studies, this task could involve limited oral history collection
- Accurate mapping of the resource, scaled to indicate size and proportion of each structure
- Architectural descriptions
- Photodocumentation in both still and video formats
- Recordation of measured architectural drawings

MM 4.8-9: *Include Policies that Require Rehabilitation and Reuse of Historically Significant Properties (Impacts 4.8-2 and 4.8-4—Remainder)*

Specific Plans and/or other development proposals for the Remainder Area shall include policies or conditions of project approval requiring the exteriors of historic properties that will be adaptively reused, to be rehabilitated and reused in accordance with the Secretary of the Interior's *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (U.S. Department of the Interior, National Park Service, 1992 [*Standards*]. In addition, finish materials, case work, and trim on the interior should be restored and/or reused where feasible.

MM 4.8-10: *Cease Work Until Review Conducted by Qualified Paleontologist and Recommendations Implemented (Impacts 4.8-3 and 4.8-4—WRSP)*

Should any evidence of paleontological resources (e.g., fossils) be encountered during grading or excavation, work shall be suspended within 100 feet of the find, and the City of Roseville shall be immediately notified. At that time, the City shall coordinate any necessary investigation of the site with a qualified paleontologist to assess the resource and provide proper management recommendations. Possible management recommendations for important resources could include resource avoidance or data recovery excavations. The contractor shall implement any measures deemed necessary by the paleontologist for the protection of the paleontological resources.

MM 4.8-11: *Include Policies in Specific Plans to Ensure the Proper Handling of Paleontological Resources (Impacts 4.8-3 and 4.8-4—Remainder)*

Specific Plans and/or other development proposals for the Remainder Area shall include policies and/or conditions of approval that require the proper handling should any evidence of paleontological resources (e.g., fossils) be encountered during grading or excavation. If any paleontological resources are identified during project construction, work shall be suspended within 100 feet of the find, and the City of Roseville shall be immediately notified. At that time, the City shall coordinate any necessary investigation of the site with a qualified paleontologist to assess the resource and provide proper management recommendations. Possible management recommendations for important resources could include resource avoidance or data recovery excavations. The contractor shall implement any measures deemed necessary by the paleontologist for the protection of the paleontological resources.

MM 4.8-12: *Conduct Appropriate Studies (Impacts 4.8-4—WRSP)*

Prior to undertaking construction of off-site infrastructure, the City shall determine whether cultural resource surveys have been undertaken for any areas to be disturbed during construction. If surveys were conducted, the City shall document that any identified resources were treated as recommended in the studies. If no studies or surveys were conducted, the City shall ensure that a qualified archaeologist conducts the appropriate level of study. If resources are found, the study recommendations shall be implemented to ensure that the resources are avoided, protected and/or recorded, as appropriate.

MM 4.8-13: *Conduct Appropriate Studies (Impact 4.8-4—Remainder)*

Specific Plans and/or other development proposals for the Remainder Area shall require that prior to undertaking construction of off-site infrastructure, the City shall ensure that cultural resource surveys are completed for any areas to be disturbed during construction. If surveys were conducted, the City shall document that any identified resources were treated as recommended in the studies. If no studies or surveys were conducted, the City shall ensure that a qualified archaeologist conducts the appropriate level of study. If resources are found, the study recommendations shall be implemented to ensure that the resources are avoided, protected and/or recorded, as appropriate.

4.9 HAZARDOUS MATERIALS AND PUBLIC SAFETY

4.9.1 Introduction

This section describes the potential adverse impacts on human health due to exposure to hazards that could result from the development of the SOI Amendment Area. Hazards evaluated include those associated with existing identified or suspected contaminated sites, potential exposure to hazardous materials used, generated, stored, or transported in or immediately adjacent to the SOI Amendment Area, potential hazards associated with high-voltage transmission lines and electromagnetic fields, and use of recycled water in public areas. Included in the discussion is a summary of applicable hazardous materials laws and regulations and agencies responsible for their implementation. Potential hazards and associated impacts related to toxic air contaminant emissions are discussed in Section 4.4 (Air Quality) of this EIR.

Sources of information to describe existing conditions and for the analysis are identified in the footnotes. These sources include a variety of City planning documents, agency and provider correspondence, consultation with City staff, and published technical information available through various websites.

Primary sources reviewed during preparation of this section include

- *Environmental Site Assessment, Placer 1600-Acre Property* (December 1999)
- *Phase I Environmental Site Assessment, Fiddyment Property* (August 1999)
- *City of Roseville: Roseville Regional Wastewater Treatment Service Area Master Plan and EIR* (May 1996)
- *Phase I Environmental Site Assessment Advisory: School Property Evaluations* (September 2001)

Information referenced in the footnotes in this section is available for review at the City of Roseville Permit Center, 311 Vernon Street, Roseville, California.

The following issues related to hazardous materials and public safety were raised during the NOP Scoping Meeting (see Appendix B): potential effects on WRSP Area residents from chemical use at the Pleasant Grove Wastewater Treatment Plant (PGWWTP) and adequacy of buffer zone; proximity of the proposed energy facility and potential health risks to WRSP Area occupants; potential soil contamination from historic pesticide use; and use of recycled water and potential public health effects. These issues are addressed in this section, except the energy facility, which is addressed under cumulative conditions in Chapter 5, CEQA Considerations. No written comments regarding hazardous materials and public safety on these topics or other issue areas were submitted during the NOP comment period.

As discussed in Chapter 1, Introduction, this EIR evaluates the impacts of the WRSP, which would include a Sphere of Influence Amendment and annexation to the City, at a project-specific level. Because a Sphere Amendment is the only action proposed for the Remainder Area (that portion of the SOI Amendment Area outside of the WRSP Area), a program-level analysis is provided for the full SOI amendment. In order to conduct the analysis, development assumptions are made for the Remainder Area (refer to Chapter 2, Project Description, for details). Figure 1-1 (SOI Amendment Area) in Chapter 1, Introduction, identifies the boundaries of the entire SOI Amendment Area, encompassing the WRSP Area and Remainder Area.

As discussed in the introduction to Chapter 4 of this EIR, Environmental Analysis, minor changes have been made to the proposed land uses for the WRSP since publication of the NOP. The number of dwelling units did not change, so the number of residents would not change. The amount of commercial uses was reduced from 88.1 to 46.8 acres (47 percent) and the mix of industrial and light industrial uses was altered, with a two-acre reduction. These changes do not substantially affect this analysis, which is based on the land use plan described in Chapter 2.

4.9.2 Environmental Setting

The presence of hazardous materials or other safety hazards is a part of everyday urban life that could affect residents, workers, and visitors within and adjacent to the SOI Amendment Area. Some of these activities can pose a risk of exposure to people or the environment due to accidental releases, such as spills, or as a result of soil or groundwater contamination related to past uses of properties within and adjacent to the SOI Amendment Area. Transportation of hazardous materials through or near the SOI Amendment Area could also present hazards.

The following section discusses existing land uses that have the potential to result in accidental releases of hazardous materials or present other health risks and identifies existing hazardous materials management programs applicable to the SOI Amendment Area. For purposes of this EIR, the term "hazardous materials" refers to both hazardous substances and hazardous wastes.[161]

A summary of potential hazards related to the presence of high-voltage electric power lines is also presented.

[161] This EIR uses the definition stated in the California Health and Safety Code (CHSC) § 25501: "A hazardous material is any material that, because of its quantity, concentration, or physical, chemical characteristics poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. 'Hazardous materials' include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or

Past and Existing Uses

The primary past activity within the SOI Amendment Area is grazing, which would not typically involve the use of pesticides or other potentially hazardous materials. Land uses within the SOI Amendment Area that could have used potentially hazardous materials include an orchard, rice farming, turkey ranching, and residences with septic systems. Known and potential hazards within the SOI Amendment Area are discussed in detail below.

West Roseville Specific Plan

Phase I Environmental Site Assessments (ESAs) were performed in 1999 by Wallace Kuhl & Associates and Rosewood Environmental Engineering to identify recognized environmental conditions in the WRSP Area that could affect the area or that could affect the property from off-site locations. Recognized environmental conditions are defined as the presence or likely presence of regulated hazardous substances, wastes, or petroleum products that indicate a release of material or material threat to the soil or groundwater at a site. The assessments were performed in accordance with American Society for Testing and Materials (ASTM) Standard Practice E-1527 and included the following: review and evaluation of information available from State and local agencies; site reconnaissance of the property and adjacent areas; interviews with knowledgeable individuals (e.g., property owners, Placer County Agriculture Commissioner and Assessor's Office staff, and Pacific Gas and Electric Co. staff); and aerial photograph and map review.

The following is a summary of information from the ESAs that were prepared for the Westpark and Fiddyment Ranch properties within the WRSP Area.

Westpark Phase I Environmental Site Assessment

The review of historic maps and photographs indicated the Westpark property was a portion of a larger, undeveloped grassland and dry-farmed area of southwestern Placer County. The Westpark property has no known history of having contained above-ground storage tanks or underground storage tanks (USTs), oil/water separators, septic systems, farm equipment maintenance areas, or agricultural chemical mixing facilities. Historically, grassland and dry-farmed sites used little or no agricultural chemicals such as pesticides or herbicides.[162]

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the environment."

[162] Wallace, Kuhl & Associates, *Environmental Site Assessment, Placer 1600-Acre Property*, December 1999, p. 23

The Westpark property is currently undeveloped. At the time of the assessment, the following were observed: a water supply well that operates with a submersible pump motor and above-ground water pressure tank; a molasses tank, cattle watering troughs, and miscellaneous debris (wood fencing, scrap metal, empty containers, tire casings, and other household-type items). In addition to the one well, there could be a second well, based on a review of historic maps. The ESA indicated the debris was not considered hazardous and recommended removal prior to site development. Neighborhood distribution (12-kilovolt) electric lines are located in the north central portion of the site near the well. A pole-mounted electric transformer was tagged as "non-PCB" (does not contain polychlorinated biphenyl oils). No discolored soils, areas of stressed vegetation or obvious evidence of surface water contamination, or odors were noted.[163] Several areas showed signs of sporadic vehicular traffic and cattle trails.[164]

The Westpark ESA noted that two 550-gallon heating oil tanks (previously containing diesel fuel) were removed from the adjacent Del Webb Sun City Roseville development in 1992. Approximately 120 cubic yards of contaminated soils and unspecified amount of groundwater were removed. The City of Roseville Fire Department issued a closure letter for the tank site in February 1993. A former hand-dug groundwater well discovered during construction at the Sun City (Del Webb Specific Plan) development was investigated in 1994. Laboratory analyses of groundwater samples taken from the well were reported to contain detectable concentrations of petroleum hydrocarbons. There was no record of a closure letter for the tank or request for further investigation by either the City of Roseville or the Regional Water Quality Control Board. A small painting equipment rinse water spill that occurred during construction at Sun City in 1996 was remediated. The ESA concluded that these incidents at the adjacent site do not pose a threat to the Westpark property.[165]

The Westpark ESA noted that off-site property to the south and west of Westpark consists of rural ranches and undeveloped land.[166] The report did not identify any environmental conditions in those areas that could affect the Westpark property.

Fiddyment Ranch Phase I Environmental Site Assessment

The Fiddyment Ranch property has been owned by the Fiddyment family since 1854. The majority of the site is covered by grasslands that have been used for decades for cattle and sheep grazing and related agricultural activities. It has also been used for dry-farmed wheat and oat grass. Rice was grown for a short time in the northwest corner of the property. From 1875 to 1990, the Fiddyment family operated a

[163] Wallace, Kuhl & Associates, *Environmental Site Assessment, Placer 1600-Acre Property*, December 1999, pp. 4–5
[164] Wallace, Kuhl & Associates, *Environmental Site Assessment, Placer 1600-Acre Property*, December 1999, pp. 3–4
[165] Wallace, Kuhl & Associates, *Environmental Site Assessment, Placer 1600-Acre Property*, December 1999, pp. 20–24

turkey ranch. Other activities included a vineyard and a pistachio orchard, which is still in operation.[167] For additional information about the history of the Fiddyment Ranch, the reader is referred to Section 4.12 (Cultural Resources).

The approximately 1,700-acre Fiddyment Ranch site is currently undeveloped land with five small areas of residential/commercial operations that include the "Old Homestead," the John Corin House, the Eric Fiddyment house, the Eric Fiddyment construction support operations or "Mill Field," and the Pistachio Orchard Office. Various structures and buildings associated with historic and current uses are located in these five areas. One hand-dug well is located at the site, and there may be others. There are at least six active and seven inactive groundwater wells. There may be six or more additional wells, according to Department of Water Resources records.[168]

Hazardous substances reportedly used and stored at the ranch included formaldehyde, lye, and arsenic-based pesticides for disinfecting cattle, diesel and 2,4-D (alkanolamine) as herbicides, and vehicle and equipment fuels contained in underground tanks. There are several overhead transmission lines and pole-mounted transformers adjacent to and within the Fiddyment Ranch property; however, according to PG&E, none of the PG&E transformers contain Polychlorinated Biphenyls (PCBs).[169]

A number of locations on the site were observed as having unidentified liquids and/or petroleum products stored in a variety of containers on site. Mounds of waste, trash and sod were observed in different locations. A household dump was identified, which was reportedly used for several decades and exhibits evidence of having been burnt. There are also several equipment scrap yards.[170]

There are reportedly no remaining underground storage tanks on the Fiddyment Ranch property. A gasoline tank was removed near the Old Homestead site around 1954, but no evidence of residue remains. There are approximately 17 above-ground storage tanks containing gasoline, diesel, and waste oil on site. All observed tanks, except for the two located at the John Corin house site, were located on concrete slabs or were within secondary containment systems. There was very little staining observed near these tanks.[171]

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[166] Wallace, Kuhl & Associates, *Environmental Site Assessment, Placer 1600-Acre Property,* December 1999, pp. 6–7

[167] Rosewood Environmental Engineering, *Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California,* August 1999, pp. 17–18

[168] Rosewood Environmental Engineering, *Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California,* August 1999, pp. 8 and 30

[169] Rosewood Environmental Engineering, *Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California,* August 1999, pp. 17–22

[170] Rosewood Environmental Engineering, *Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California,* August 1999, p. 31

[171] Rosewood Environmental Engineering, *Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California,* August 1999, p. 31

No records of organochlorine, organophosphate, or other environmentally persistent pesticides were reported. No soils samples were taken to determine potential soil contamination related to arsenic-based pesticides or formaldehyde use.[172]

It is likely the structures and buildings contain materials that have asbestos (e.g., floor tiles, insulation wrap, roofing material, and siding). No sampling was performed during the ESA. Lead-based paint could also be present. A stack of fluorescent lights was observed in the hatchery building within the Old homestead. PCBs might be associated with fluorescent lights, but no further investigation was conducted.[173]

Septic systems could be present. It is not known whether hazardous materials were disposed of in on-site septic tanks, if such tanks exist.[174]

The ESA recommended soil sampling at the fuel storage tank, pesticide use areas, and locations containing debris (including the household dump) to identify whether soils have been adversely affected by historic uses, and remediation, as necessary, prior to grading. In addition, the report recommended that existing wells that will not be used should be closed to minimize the potential for contamination pathways and because of the physical hazard they could present.[175] The recommended actions have not yet been implemented.

During site reconnaissance in 1999, unauthorized dumping of motor oil bottles and other trash was observed less than 100 yards upstream of Pleasant Grove Creek in the WRSP Area.[176] Flows in Pleasant Grove Creek and Kaseberg Creek have reportedly increased as a result of development upstream. The runoff could have affected water quality within the Fiddyment Ranch property. Additional water quality investigation was recommended by the ESA preparer.[177]

Remainder Area

The physical characteristics of the Remainder Area are similar to those of the WRSP Area, consisting of undeveloped nonnative, annual grasslands. The current predominant land use is seasonal livestock grazing. As noted in the Westpark ESA, historically, grassland and dry-farmed sites used little or no

[172] Rosewood Environmental Engineering, *Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California,* August 1999, p. 32
[173] Rosewood Environmental Engineering, *Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California,* August 1999, p. 34
[174] Rosewood Environmental Engineering, *Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California,* August 1999, p. 34
[175] Rosewood Environmental Engineering, *Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California,* August 1999, pp. 30–34
[176] Rosewood Environmental Engineering, *Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California,* August 1999, p. 25
[177] Rosewood Environmental Engineering, *Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California,* August 1999, p. 35

agricultural chemicals such as pesticides or herbicides.[178] However, a Phase 1 ESA has not been prepared for the Remainder Area to determine whether past uses have affected soil or groundwater conditions.

Other Facilities in the Vicinity of the SOI Amendment Area

Several facilities outside the SOI Amendment Area involve operations in which hazardous materials are used or could be present, or could present physical hazards. These facilities are important in the context of evaluating potential impacts associated with occupancy of the SOI Amendment Area.

Pleasant Grove Wastewater Treatment Plant

A regional wastewater treatment plant under construction adjacent to and north and west of the WRSP Area is expected to be operational in January 2003 (refer to Figure 2-3 [West Roseville Specific Plan Land Use Plan] in Chapter 2 [Project Description]).

The PGWWTP will provide tertiary-level treatment through the process of screening, grit removal, extended aeration, secondary clarification, filtration, chlorination and dechlorination.[179] As further described in Section 4.11 (Public Utilities), the plant will provide full nitrification and will produce recycled water that meets Title 22 regulations for full, unrestricted use.[180]

The City of Roseville certified the Roseville Regional Wastewater Treatment Service Area Master Plan EIR (SCH# 93092079) in May 1996 for the PGWWTP. The EIR analyzed the potential environmental effects of PGWWTP operation and identified mitigation measures to reduce potential hazards. A 1,000-foot non-residential buffer around the PGWWTP was delineated in the EIR as a risk reduction measure to address the potential of an accidental release of chlorine gas.[181] However, as discussed below, the PGWWTP will not be using gaseous chlorine for disinfection. Instead, a liquid solution of sodium hypochlorite at a concentration slightly greater than household bleach will be used, which will substantially reduce the hazards that could result from an accidental release. The 1,000-foot buffer remains unchanged, however.

The PGWWTP would use several chemicals in varying amounts for treatment and disinfection processes and plant maintenance. Because the plant is not yet operational, exact quantity information is not

[178] Wallace Kuhl & Associates, *Environmental Site Assessment, Placer 1600-Acre Property*, December 1999, p. 23
[179] Montgomery Watson, City of Roseville: Roseville Regional Wastewater Treatment Service Area Master Plan, May 1996, p. ES-21
[180] Kelye McKinney, P.E., City of Roseville, Personal Correspondence, June 10, 2002
[181] City of Roseville, *Roseville Regional Wastewater Treatment Service Area Master Plan Draft Environmental Impact Report* (SCH #93092079), May 1996, Chapter 10.0

available. However, preliminary estimates for use, storage, and delivery have been developed.[182] This information is summarized in Table 4.9-1.

Table 4.9-1 Pleasant Grove Wastewater Treatment Plant Anticipated Chemical Use, Storage, and Delivery

Product (Use)	Amount Stored	Rate(gallons/month)	Frequency of Deliveries to PGWWTP
Sodium hypochlorite, 12% solution in liquid form (disinfection)	two 8,750-gallon tanks	83,000	1/week
Sodium bisulfite, 25% solution in liquid form (dechlorination)	two 8,750-gallon tanks	19,000	every other week
Sodium hydroxide (pH [acidity] control)	two 10,500-gallon tanks	66,000	every three weeks
Aluminum sulfate (coagulant)	two 6,500-gallon tanks	52,000	one/month
Ferric chloride, 39–47% solution (odor control)	one 8,750-gallon tank	15,000 (preliminary)	1/month
Polymer (coagulant)	one 6,000-gallon tank, 300/400-gallon tote bins, 55-gallon drums	59,000 gallons/ 9 months	every three to four weeks

NOTES:
All trips are for 6 mgd and all trucks are 5,000 gallon tractor/trailer rigs.
SOURCE: Art O'Brien, City of Roseville EUD, personal communication, June 11, 2002

All of the chemicals listed in Table 4.9-1 will have secondary containment and will be stored outside, with the exception of the polymer tote bins and drums, which would be stored inside buildings at the plant.[183] The PGWWTP has been designed so that all site drainage is kept on-site. Therefore, in an event a chemical were to be released on-site, it would be routed to the treatment plant's head works where it would enter the influent waste stream for treatment. Other products such as oil, lubricants, paints, solvents, and small amounts of laboratory chemicals for testing wastewater quality would also be used. The City of Roseville Fire Marshal reviewed the anticipated chemical use and plant operational design in August 2002 for potential off-site consequences at the WRSP Area and concluded that plant operations were not likely to result in off-site consequences.

Treatment Chemicals

As with other facilities using hazardous materials, the use of wastewater-treatment chemicals at the PGWWTP is strictly regulated by State and local regulations. The City of Roseville Fire Department will be responsible for routine hazardous materials inspections and incident response in case of an accidental release of hazardous materials (see Regulatory Setting, below). Further, operation of the plant would implement National Fire Protection Association 820 standards. Because no gaseous or liquid chlorine would be used for disinfection, the facility is not required to prepare a Risk Management Program under

[182] Art O'Brien, City of Roseville EUD, personal communication, June 14, 2002
[183] Art O'Brien, City of Roseville EUD, personal communication, June 14, 2002

the California Accidental Release Program (CalARP) requirements (California Health and Safety Code Sections 25531–25543).[184]

Fiddyment Substation and High-Voltage Electric Power Lines (Remainder Area Only)

A 230-kilovolt (kV) electrical receiving station is located east of the Remainder Area on the east side of Fiddyment Road, approximately 375 feet south of Pleasant Grove Boulevard. The transmission lines are shared by Pacific Gas & Electric Company (PG&E) and the Western Area Power Administration (WAPA). The locations of these facilities are shown in Figure 4.11-7 (West Roseville Specific Plan Electric Substation and 60 kV Power Line Easements) in Section 4.11 (Public Utilities).

The northern boundary of the substation site is adjacent to an existing 425-foot-wide transmission corridor that consists of aboveground 230 kV transmission lines that run east/west through the Remainder Area approximately 375 feet south of Pleasant Grove Boulevard. Buffer zones are provided around the facility. Materials used at the Fiddyment receiving station include batteries and mineral oil. Sixty-three cells of sealed, maintenance-free gel-type batteries are located in a fire-proof control center that provides secure containment for the unit. Secondary containment consists of a subfloor container capable of holding 100 percent of the total acid content of the batteries. Secondary containment for the mineral oil is a pit surrounding the transformer. This structure can hold 100 percent of the transformer's oil capacity and the maximum rainfall over a 24-hour period for the greater of the area's 25-year history, as required by the Uniform Fire Code, or the total maximum rainfall over a 1-month period, as required by the U.S. EPA.[185] Areas inside the electrical easements are restricted from structural- and building-type development, although the easement area is allowed to contain driveways or parking lots, for example, subject to review and approval by PG&E and/or other electric utility providers involved.[186]

Electric and Magnetic Field Strength

Electric and magnetic fields (EMF) are invisible lines of force that surround any electrical device. Electric fields are produced by voltage and increase in strength as the voltage increases. Magnetic fields result from the flow of current through wires or electrical devices and increase in strength as the current increases. Most electrical equipment has to be turned on, i.e., current must be flowing, for a magnetic field to be produced. Electric fields, on the other hand, are present even when the equipment is switched

[184] Art O'Brien, City of Roseville EUD, personal communication, June 11 and 14, 2002

[185] Resource Management Inc., *City of Roseville Electric Department 230-6--kV Fiddyment Substation Project Initial Study/Negative Declaration*, December 1994

[186] Wallace Kuhl & Associates, *Environmental Site Assessment, Placer 1600-Acre Property*, December 1999, p. 6

off, as long as it remains connected to the source of electric power.[187] Electric fields are shielded or weakened by materials that conduct electricity (including trees, buildings, and human skin). Magnetic fields, on the other hand, pass through most materials and are therefore more difficult to shield. Both electric and magnetic fields decrease as the distance from the source increases.[188] Electric field intensity decreases rapidly with increasing distance from a transmission line. In addition, electric fields are effectively shielded by larger objects such as trees and houses.

The potential health effects of EMF associated with transmission lines, such as those that traverse the Remainder Area, have been the focus of scientific controversy for several years. As a result, utility companies and public health agencies are trying to address public concern over the potential health effects of exposure to EMFs. Experts are uncertain there is a danger, and if so, what constitutes a safe level of exposure. The following discussion is a general summary of existing information related to the hazards associated with EMF exposure.

Potential Health Hazards

For some time, the only potential hazard associated with electricity was the potential for electrical shock. In the late 1970s, some questions were raised with the potential for other health hazards that could be associated with the electricity, particularly if there was a link between living near power distribution lines and childhood cancer mortality. Several studies were subsequently approved to study the attributable effects of electrical energy in the extremely low frequency (ELF) range in addition to EMFs.[189]

In 1992, Congress authorized the Electric and Magnetic Field Research and Public Information Dissemination Program (EMF-RAPID Program). The study, which was published in 1999, concluded that the scientific evidence connecting health risks due ELF-EMF exposure is weak. The epidemiological study (studies of humans living in these environments) demonstrated a small increased risk, while the mechanistic and animal toxicology studies have failed to demonstrate any consistent patterns in the biological effects.[190] The National Institute of Environmental Health Sciences (NIEHS) study concluded "virtually all of the laboratory evidence in animals and humans, most of the mechanistic work done in cells fails to support a causal relationship between exposure to ELF-EMF at environmental levels and changes in biological function or disease status".[191] Conversely, the study also stated that "exposure

[187] Website: http://www.cpuc.ca.gov/static/industry/environment/electromagnetic+fields/what_are_emf.htm, Accessed June 10, 2002
[188] Website: http://www.cpuc.ca.gov/static/industry/environment/electromagnetic+fields/what_are_emf.htm, Accessed June 10, 2002
[189] National Institute of Environmental Health Sciences, *Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields* (No. 99-4493), Executive Summary, 1999, p. i
[190] National Institute of Environmental Health Sciences, *Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields* (No. 99-4493), Executive Summary, 1999, p. ii
[191] National Institute of Environmental Health Sciences, *Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields* (No.

cannot be recognized as entirely safe because of weak scientific evidence that exposure may pose a leukemia hazard."[192]

Peaking Facility

The Northern California Power Agency (NCPA) operates a peaking facility one-quarter mile west of the end of Sunset Boulevard, approximately two miles northeast of the Fiddyment Road/Blue Oaks Boulevard intersection. The 25,800-kilowatt combustion-turbine facility is part of an expanded peaker system that reduces the need for outside power purchases, resulting in lower electrical costs to NCPA customers. The facility uses natural gas during normal operation, but there is a 100,000-gallon storage tank that contains fuel oil in case the natural-gas supply is interrupted. The natural-gas power system contains built-in controls for shutdown if monitored systems deviate from established normal operating conditions. The fuel-oil storage tank is bermed to contain accidental spillage, and the fuel pipeline is equipped with a secondary containment feature to control leakage.[193]

Transmission lines would be a potential source of EMF in portions of the WRSP Area and Remainder Area. EMF levels along the transmission systems are anticipated to be within the following limits: 1.0 kilovolts per meter (kV/m) to 3.0 kV/m for electric fields a the edge of the right-of-way to 11 kV/m within the ROW, and 150 milligauss (mG) to 250 mG at the edge of the right-of-way, depending on voltage. Risks associated with these numerical ranges, which have been adopted by some states in the U.S. but not California, are considered small, given the current understanding of EMF and health effects.[194]

Western Regional Sanitary Landfill

The southern boundary of the Western Regional Sanitary Landfill property is located approximately 1 mile north-northeast of the WRSP Area, at the intersection of Athens and Fiddyment Roads. The 320-acre facility is a permitted Class II and III landfill that receives solid waste from Lincoln, Rocklin, Roseville, Loomis, Auburn, and the unincorporated portion of Placer County Franchise Areas 1, 5 and 6. In addition to typical household-type municipal solid wastes, the facility also accepts sludge (biosolids) and ash. Hazardous or medical wastes are not accepted at the landfill. Landfill operations and water quality protection are subject to the requirements specified in Titles 14 and 27 of the California Code of Regulations.

99-4493), Executive Summary, 1999, p. ii

[192] National Institute of Environmental Health Sciences, *Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields* (No. 99-4493), Executive Summary, 1999, p. iii

[193] Placer County, *Negative Declaration for the Northern California Power Agency Roseville Area Peaking Facility*, June 28, 1984

[194] Roseville Energy Park Application for Certification, July 2001, p. 5.16-18

Other Commercial Industrial Facilities

There are no existing businesses or commercial operations adjacent to the SOI Amendment Area that use hazardous materials. However, facilities operated by NEC and Hewlett Packard, approximately one mile east of the Fiddyment Ranch property, use various types and quantities of hazardous substances. The primary risk to the SOI Amendment Area posed by these facilities is the release of substances to the air either as toxic air contaminants (TACs) or through inadvertent or accidental releases. Please see Section 4.4 (Air Quality) for additional information.

According to the Roseville Fire Department, hazardous-materials-related incidents, such as an inadvertent release of material, have been minimal in existing facilities. Where there was a release, facility operators corrected the situation to minimize the potential for a repeat occurrence.[195]

Transportation of Hazardous Materials within and Adjacent to the SOI Amendment Area

Hazardous materials are routinely transported by truck or rail. With few exceptions, Section 31303 of the California Vehicle Code and U.S. Department of Transportation (DOT) regulations prohibit the through-transportation of hazardous materials through residential neighborhoods and require that hazardous materials be transported via routes with the least overall travel time; however local deliveries are allowed (e.g., delivery of chemicals to the PGWWTP). Temporary and permanent truck routes are illustrated by Figure 4.9-1 (Truck Routes). The City of Roseville Public Works Department Traffic Division has designated truck routes upon which hazardous materials may be transported by common carrier through the City to light industrial and industrial facilities. Currently, near the SOI Amendment Area, hazardous materials can be transported only on Blue Oaks Boulevard west from State Route 65 and on Baseline Road west of Foothills Boulevard. Hazardous materials may also be transported on State Route 65 or the Union Pacific Railroad line, approximately two miles east of the WRSP boundary. Transportation of hazardous materials along any City or State roadways or rail lines is subject to all DOT hazardous materials transportation regulations. Current deliveries to the PGWWTP will be via State Route 65 to Blue Oaks Boulevard south and Fiddyment Road to Phillip Road. Please see Impact 4.9-8 for a discussion of a temporary truck route to access the PGWWTP until the Blue Oaks Boulevard, Phillip Road connection is completed.

[195] City of Roseville, *North Roseville Specific Plan Draft Environmental Impact Report*, May, 1997, p. 4.8-15

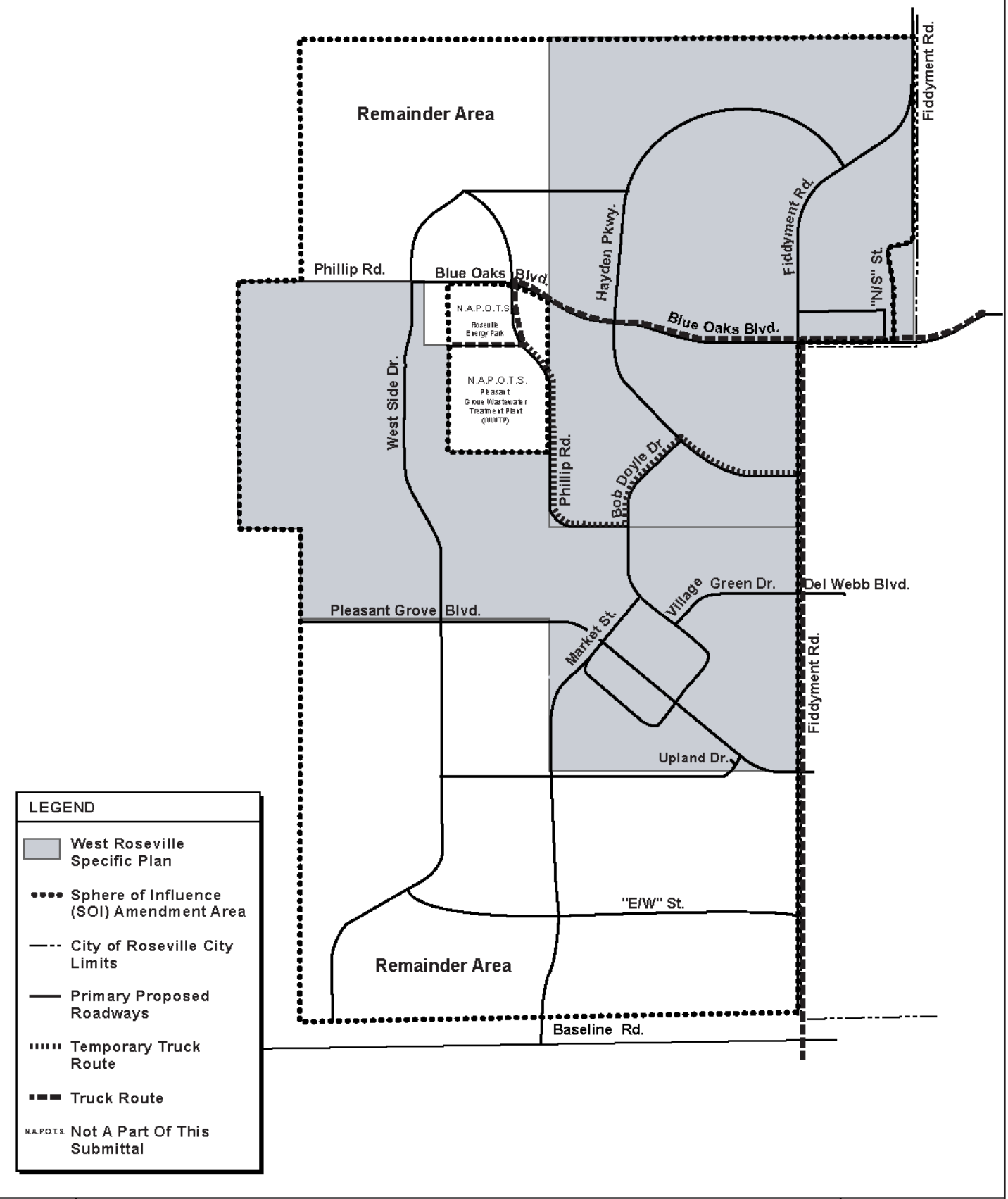


FIGURE **4.9-1**

Truck Routes

Not to Scale

10659-00

Source: Wade Associates, 2003; EIP Associates, 2003

City of Roseville

4.9.3 Regulatory Setting

The following discussion summarizes federal, State, and local regulatory authorities pertaining to hazardous materials management and cleanup. In California, State agencies have obtained regulatory primacy with respect to hazardous waste management. Thus, the State has developed its own regulatory scheme that it implements with federal oversight. For this reason, the Regulatory Setting section focuses primarily on State and local authorities, as they would have the most involvement in hazardous waste management for this project.

Federal

Several federal agencies regulate hazardous materials. These include the U.S. Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), and the Department of Transportation (DOT). Applicable federal regulations are contained primarily in Titles 10, 29, 40, and 49 of the Code of Federal Regulations (CFR). Title 40 of the CFR addresses emergency planning and notification, hazardous material management plans, soil and water pollution remediation and reporting, and community right-to-know reporting. The hazardous materials use and reporting programs would be administered by the CUPA [Roseville Fire Department]. Any investigation and/or cleanup of soil contamination by the Applicant and/or school district (see also California Code of Regulations Title 27) would be subject to standards set forth in Title 40.

Uniform Building Code and Uniform Fire Code

Prior to issuance of building permits and during occupancy, the City of Roseville Permit Division and Fire Department would be responsible for reviewing plans for facilities proposing to use hazardous materials to ensure that applicable Uniform Building Code and Uniform Fire Code standards are included in project design. These standards address, among other elements, proper storage and secondary containment for hazardous materials and fire-safe construction and materials. Use of appropriate design features would help reduce the potential for accidental releases of hazardous materials that could affect occupants or require emergency response services.

State

The California Environmental Protection Agency (Cal/EPA) and the Office of Emergency Services (OES) establish regulations governing the use of hazardous materials in the State. Within Cal/EPA, the Department of Toxic Substance Control (DTSC) has primary regulatory responsibility for hazardous waste management. Enforcement of regulations has been delegated to local jurisdictions that enter into

agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law. Along with the DTSC, the Regional Water Quality Control Board (RWQCB) is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. RWQCB regulations are contained in Title 27 of the CCR. The DTSC, RWQCB, and/or a local agency (e.g., Placer County Environmental Health Division) typically oversee investigation and cleanup of contaminated sites. Additional State regulations applicable to hazardous materials are contained in Title 22 of the California Code of Regulations (CCR). Title 26 of the CCR is a compilation of those sections or titles of the CCR that are applicable to hazardous materials management. Title 8 of the CCR addresses workplace regulations involving the use, storage, and disposal of hazardous materials.

In January 1996, Cal/EPA adopted regulations implementing a "Unified Hazardous Waste and Hazardous Materials Management Regulatory Program" (Unified Program). The six program elements of the Unified Program are hazardous waste generators and hazardous waste on-site treatment, underground storage tanks, above-ground storage tanks, hazardous material release response plans and inventories, risk management and prevention program, and Uniform Fire Code hazardous materials management plans and inventories. The program is implemented at the local level by a local agency – the Certified Unified Program Agency (CUPA). The CUPA is responsible for consolidating the administration of the six program elements within its jurisdiction.

The California Health and Safety Code provides minimum Statewide standards and regulations for the management of hazardous wastes to protect against potential hazards to public health or the environment.

The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) are the enforcement agencies for hazardous materials transportation regulations. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations. California Vehicle Code Section 31303 regulates the transport of hazardous materials.

School Siting

Contaminated Sites

The California Education Code (Section 17210 *et seq.*) outlines the requirements of siting school facilities near or on known or suspected hazardous materials sites, or near facilities that emit hazardous air emissions, handle hazardous or acutely hazardous materials, substances, or waste. The code requires that, prior to commencing the acquisition of property for a new school site, an environmental site investigation be completed to determine the health and safety risks (if any) associated with a site. Recent

legislation and changes to the Education Code identify DTSC's role in the assessment, investigation, and cleanup of proposed school sites. All proposed school sites that will receive State funding for acquisition and/or construction must go through a comprehensive investigation and cleanup process under DTSC oversight. DTSC is required to be involved in the environmental review process to ensure that selected properties are free of contamination, or if the property is contaminated, that it is cleaned up to a level that is protective of students and faculty who will occupy the new school. All proposed school sites must be suitable for residential land use, which is DTSC's most protective standard for children.

Prior to acquiring a school site or engaging in a construction project, school districts must contract for the preparation of a Phase I ESA, which must be reviewed by DTSC according to established timelines. The Phase I ESA, which must be prepared by a qualified professional, can be used to support a conclusion that no recognized environmental conditions are present, or a Preliminary Endangerment Assessment (PEA) is necessary. Although the methodology for conducting Phase I ESAs is the ASTM Industry Standard E-1527 (previously described), DTSC has developed an interim draft advisory that supplements the ASTM E-1527 standard that more specifically addresses school sites.[196]

If the Phase I concludes, or DTSC determines, that a PEA be conducted, the school district can either proceed with the PEA or drop the school site from further consideration. If the district chooses to proceed with a PEA, it will be required to enter into an Environmental Oversight Agreement with DTSC to oversee preparation of the PEA, which must be submitted to DTSC for review and approval. If the approved PEA concludes the property would not pose a threat, DTSC will issue a "No Further Action" determination and will not require additional investigation or cleanup. If the PEA concludes the property is contaminated, the district must clean up the site, or it can choose not to proceed with development of the school project. When all necessary cleanup activities are completed according to DTSC-approved plans, DTSC will certify the site cleanup is complete.[197]

If a previous Phase I ESA has been conducted for the proposed school site and is more than 180 days old, DTSC recommends an addendum be prepared to verify the site conditions or describe changes in site conditions.[198]

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[196] California Environmental Protection Agency, Department of Toxic Substances Control, "Phase I Environmental Site Assessment Advisory: School Property Evaluations, Revised September 5, 2001," September 5, 2001

[197] California Environmental Protection Agency, Department of Toxic Substances Control, School Property Evaluation and Cleanup Division, *Fact Sheet: New Environmental Requirements for Proposed Schoolsites (Assembly Bill 387 and Senate Bill 162)*, April 2001

[198] California Environmental Protection Agency, Department of Toxic Substances Control, "Phase I Environmental Site Assessment Advisory: School Property Evaluations, Revised September 5, 2001," September 5, 2001

In conjunction with the Phase I and PEA process, DTSC has also developed specific sampling guidance for schools proposed on land historically used for agriculture where pesticides have been routinely applied ("Interim Guidance for Sampling Agricultural Fields for School Sites," August 2002). DTSC recommends that school districts and their hazardous materials consultant coordinate with DTSC to determine the applicability of the Interim Guidance to a specific location and the need for testing.[199]

Location Relative to Source of Hazardous Emissions

In addition to an evaluation of potential site contamination issues, Public Resources Code Sections 21151.4, 21151.8, and 21151.2 require that no EIR be approved for a project involving the construction or alteration of a facility that might reasonably be anticipated to result in hazardous air emissions within one-quarter mile of a school unless the lead agency has consulted with the school district having jurisdiction regarding the potential impact of the project on the school, or the school has been given written notification of the project not less than 30 days prior to approval of the EIR. Section 4.4 (Air Quality) includes additional information about hazardous emissions.

Location Relative to Electrical Transmission Sources

The California Department of Education School Facilities Planning Division has developed specific guidelines that address the location of schools relative to electrical transmission lines. Any part of a school site must be a minimum of 100 feet from the edge of an easement for a 50 to 133 kV line, 150 feet from the edge of an easement for a 220 to 230 kV line, or 350 feet from the edge of an easement for a 500 to 550 kV line.[200]

Use of Recycled Water

Recycled water refers to wastewater treatment plant effluent that has received treatment that meets the State requirements for direct nonpotable use (e.g., irrigation of landscaping, industrial cooling purposes). These treatment requirements are set forth in Section 60301 *et seq.* of Title 22 of the CCR. Section 60301.230 specifies the following requirements for recycled water that would be produced by the PGWWTP:

> "Disinfected tertiary recycled water" means a filtered and subsequently disinfected wastewater that meets the following criteria:
>
> (a) The filtered wastewater has been disinfected by either:

[199] California Environmental Protection Agency, Department of Toxic Substances Control, "Interim Guidance for Sampling Agricultural Fields for School Sites," 2nd revision, August 26, 2002

[200] California Department of Education, School Facilities Planning Division, Resources for School Facilities Planning. 2000, p. 6

(1) A chlorine disinfection process following filtration that provides a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow; or

(2) A disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.

(b) The median concentration of total coliform bacteria measured in the disinfected effluent does not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.

Water meeting these standards (referred to as "tertiary-2.2 criteria") may be used for unrestricted use, which includes (but is not limited to) body contact for recreation (swimming), irrigation of food crops, and irrigation of parks, playgrounds, and schoolyards. The State Department of Health Services (DHS) considers a properly filtered and disinfected water meeting the tertiary-2.2 standard to be essentially pathogen-free and adequately protective of public health.[201]

Prior to using the recycled water for irrigation, the City would be required to prepare an Engineering Report in accordance with Title 22 of the California Code of Regulations, which would be submitted to and reviewed by DHS.

DHS regulations also require that recycled water must be conveyed in a totally separate distribution system from the potable water supply. Areas where recycled water will be used for irrigation must be maintained by professional landscape maintenance contractors and City maintenance staff. The City would be responsible for implementing a cross-connection program to ensure that future potable services are not accidentally connected to the recycled water system and a public information program (including signage) to notify the public of the use and location of nonpotable water application. Section 60301 of the regulations establishes specific use area requirements that address proximity of application areas to domestic supply wells and runoff control.

Local

The City of Roseville and Placer County are responsible for enforcing many State regulations governing hazardous materials management, including waste generation, minimization, and storage, and underground storage tanks. Sampling plans written to define the extent of lead based paint, fuel or waste

[201] Jeff Stone, California Department of Health Services, "San Diego Unified School District Unrestricted Landscape Irrigation," letter to San Diego City Schools, June 24, 1999

oil contamination in soil shall be reviewed by the Roseville Fire Department. Removal of material containing asbestos where surface areas are in excess of 100 square feet shall be performed by a licensed asbestos abatement contractor. A permit shall be obtained from the Roseville Fire Department to remove any remaining aboveground tanks (above 60 gallon capacity). During construction, contractors intending to utilize temporary tanks to supply fuel or propane shall obtain permits from the Roseville Fire Department, and shall comply with provisions of the CFC Article 87. Storage and disposal of hazardous waste during clean-up, or development shall comply with Title 22 requirements.

Placer County

The Roseville Fire Department administers CUPA elements within its jurisdiction, and the Placer County Department of Health and Medical Services, Environmental Health Division (PCDEH) administers CUPA elements in the County and in unincorporated areas of the County. The Placer County Office of Emergency Services (PCOES) provides emergency planning and response services in conjunction with the City of Roseville Fire Department (see below).

A Hazardous Waste Management Plan (HWMP) was developed in 1988 and adopted in 1989 by Placer County in response to the Tanner Act (AB 2948). The HWMP includes information on current and projected hazardous waste generation in the County, including household hazardous waste, an inventory of contaminated sites and hazardous waste treatment, storage, and disposal (TSD) facilities, and administrative policies and implementation measures. Placer County has determined the amount of waste generated does not justify the need for a TSD facility within the County. As such, hazardous wastes generated as a result of the SOI Amendment Area would require disposal at TSD facilities outside the County until demand for these facilities exceeds their capacity or until on-site treatment of hazardous wastes becomes more cost effective than off-site disposal.[202]

City of Roseville

Chapter 9.60 of the Roseville Municipal Code establishes City regulations for the identification and disclosure of hazardous materials use and management in the City.

Fire Department

The Roseville Fire Department works cooperatively with the PCDEH in matters regarding hazardous materials management. The Roseville Fire Department is the CUPA for the City. The City of Roseville Fire Department is responsible for enforcing UST regulations, which include issuing permits for tank use

and removal and annual inspections. The Fire Department also oversees cleanup of soil contamination related to leaking USTs in cooperation with the County and the RWQCB. As described above, the Roseville Fire Department also inspects and monitors facilities required to comply with federal and State hazardous materials inventory and reporting regulations and provides emergency response in the event of an incident involving hazardous materials.

The City of Roseville does not have a specific policy that addresses minimum setback requirements for land uses that could involve the use of hazardous materials, although existing City setback requirements would provide some level of protection from accidental releases.

Hazardous Materials Emergency Response

The Roseville Fire Department has developed a Hazardous Materials Emergency Response Plan. The plan describes organizational and operational responsibilities in the event of a hazardous materials emergency, including cleanup and decontamination procedures. As first responders to hazardous material incidents, personnel on each shift are trained to respond to hazardous materials incidents according to standards specified in CCR Title 8, Section 5192 (Hazardous Waste Operations and Emergency Response). Through mutual aid agreements, the Roseville Fire Department can also request services from the Placer County Hazardous Materials Response Team in the event of a large-scale incident. The Roseville Fire Department would also provide assistance to the California Highway Patrol, Office of Emergency Services, and other responding agencies as requested in the event of a hazardous materials spill on State Route 65 or Interstate 80.

The City revises its Emergency Response Plan (Disaster Plan) every three years.[203] The plan is an extension of the City's Multi-Hazard Functional Plan and follows nationally adopted Incident Command System guidelines. The Emergency Response Plan describes roles and responsibilities during emergencies, operating procedures, equipment, and administrative procedures. Specific evacuation routes are generally not included in disaster plans since emergency response procedures and evacuation would need to be determined on a case-by-case basis. Although existing City emergency plans do not indicate specific routes, they have determined that if evacuation in response to a hazardous materials incident in existing or planned areas was needed that evacuees would be directed to areas upwind of the incident. The predominant wind direction is from the south or southwest. Depending on weather conditions, evacuation to the east or west would be the second option. Evacuation to the north would

[202] Placer County, *General Plan Update, Draft General Plan Background Report, volume II*. September 25, 1992

[203] Steve Anderson, Roseville Fire Department. Personal communication, May 28, 2002

occur only if weather conditions necessitated it. The exact routes and distances would be determined in response to the nature and severity of the incident.

Household Hazardous Waste Program

The City of Roseville's Environmental Utilities Department is responsible for ensuring compliance with the Source Reduction and Recycling Element (SRRE) provisions of the Integrated Waste Management Act (AB 939), which includes guidelines for the management of household hazardous waste. Current programs being used by the City include a drop-off program for used motor oil managed by the City's Solid Waste Division as a recycle-only site, and a permitted Household Hazardous Waste Facility managed by the Western Placer Waste Management Authority (WPWMA). The WPWMA developed a permanent drop-off location in conjunction with a regional Materials Recovery Facility (MRF), which would allow for the removal of hazardous materials in delivered refuse prior to disposal in the landfill. The MRF became operational in November 1995.[204]

General Plan

The City of Roseville General Plan includes several policies relating to hazardous materials and safety, as outlined below. Refer to Appendix C for a complete list of all City goals and policies that are directly applicable to hazardous materials and safety:

- City of Roseville General Plan Policy SE-1
- City of Roseville General Plan Policy SD-2
- City of Roseville General Plan Policy SG-1
- City of Roseville General Plan Policy SG-2

Stormwater Management Program (SWMP)

The March 2003 SWMP includes procedures that the City would implement to minimize the potential for the illicit or illegal disposal of materials that could be hazardous (e.g., household hazardous waste). These procedures, which would be performed by City staff, would include random inspections in the WRSP Area, with a particular emphasis on inspection of open space/waterways.

[204] City of Roseville, *Comprehensive Land Use Element Project Update,* February 1995

4.9.4 Impacts and Mitigation Measures

Methods of Analysis

For purposes of this analysis, the typical use of hazardous materials and their effects were qualitatively assessed through review and evaluation of available documents that identified potential contaminants and hazardous materials users within the SOI Amendment Area and vicinity. City of Roseville planning documents were reviewed and information was obtained from City staff to qualitatively assess the potential for hazardous materials use and accidents in future development and at industrial uses adjacent to the SOI Amendment Area. Sources of information are referenced in the footnotes throughout this section. Published information regarding the potential hazards generated by EMFs and related City of Roseville "prudent action" policies were also reviewed.

The potential for airborne releases of toxic air contaminants or odors from adjacent industrial facilities are discussed in Section 4.4 (Air Quality).

In determining the level of significance, the analysis assumes that the WRSP Area and Remainder Area, if annexed, would comply with relevant federal and State laws and regulations, City General Plan policies, ordinances, and Improvement Standards. Therefore, such policies, ordinances, and standards are not identified as mitigation measures. The baseline for the analysis in this section is existing conditions. Approved uses that are under development, such as the PGWWTP, are also considered in this section. Cumulative impacts relating to hazardous materials and public safety are addressed in Chapter 5.

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area would do any of the following:

- Create a significant hazard to the public or the environment through the routine transport, use, of disposal of hazardous materials
- Create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school
- Expose people to potential known hazards associated with high-voltage transmission lines

IMPACT 4.9-1:	INCREASED POTENTIAL FOR ACCIDENTAL RELEASE OR SPILL OF HAZARDOUS MATERIALS DURING CONSTRUCTION OR OCCUPANCY	
Applicable Policies and Regulations:	Code of Federal Regulations Title 49 General Plan Policy SE-1 California Health and Safety Code Chapter 6.95 California Code of Regulations Titles 8, 22, and 26 Unified Hazardous Waste and Hazardous Materials Management Regulatory Program Uniform Building Code, Uniform Fire Code Roseville Fire Department/CUPA permitting and enforcement	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures	None required	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant

West Roseville Specific Plan/Remainder Area

Hazardous materials would be used in varying amounts during construction and operation of the WRSP and development of the Remainder Area. The types and quantities of hazardous materials that would be present during occupancy of the residential and commercial land uses in the SOI Amendment Area are expected to include, for example, household-type and maintenance products (e.g., paints, solvents, pool chemicals, pesticides/herbicides). In the light-industrial and industrial areas, other chemicals would be stored and used, which by their nature and/or quantity, would pose greater risks to project occupants and visitors. The four groundwater wells (see Impact 4.11-4 in Section 4.11, Public Utilities) would include well-head chlorination and fluoridation. Contact should be made with Ken Glotzbach of Roseville Environmental Utilities Department regarding closure or continued use of wells referenced herein. It is recommended that baseline sampling be preformed on groundwater for contaminants of concern to determine if it has been impacted. If this is confirmed, the RWQCB will assume lead oversight in remedial work necessary to achieve an acceptable clean-goal. The types and amounts of hazardous materials would vary according to the nature of the activity. However, specific businesses or commercial activities have not been identified in either the WRSP Area or Remainder Area. Therefore, the actual hazardous materials and amounts that would be on site or within a specific location in the SOI Amendment Area cannot be determined at this time. In some cases, it is the type of hazardous material that is potentially hazardous; in others, it is the amount of hazardous material that would present a hazard.

Exposure of construction workers or site occupants to hazardous materials would occur in the following manner: improper handling or use of hazardous materials or hazardous wastes during construction or operation of the project, particularly by untrained personnel; transportation accident; environmentally unsound disposal methods; or fire, explosion or other emergencies. Construction workers and future site residents would be exposed to hazards associated with accidental releases of hazardous materials, which would result in adverse health effects.

Hazardous materials regulations, which are codified in Titles 8, 22, and 26 of the CCR, and their enabling legislation set forth in Chapter 6.95 of the California Health and Safety Code, were established at the State level to ensure compliance with federal regulations to reduce the risk to human health and the environment from the routine use of hazardous substances. These regulations must be implemented by employers/businesses, as appropriate, and are monitored by the State (e.g., Cal OSHA in the workplace or DTSC for hazardous waste) and/or local jurisdictions (e.g., the Roseville Fire Department).

By ensuring that businesses in or adjacent to the WRSP Area comply with the Unified Program (UP), the City would reduce impacts associated with the potential for accidental release of hazardous materials during occupancy of the WRSP Area that would result in increased risk of exposure to accidental release of hazardous materials from the PGWWTP and proposed Roseville Energy Park, and the potential for an increased demand for incident emergency response. This would be accomplished by ensuring that regulated activities (e.g., businesses) within the WRSP Area are managed in accordance with applicable regulations such as Hazardous Materials Release Response Plans and Inventories (Business Plans), the California Accidental Release Prevention (CalARP) Program, and the California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements, as discussed in Impacts 4.9-1 through 4.9-3. Off-site activities (e.g., the PGWWTP and proposed Roseville Energy Park) would also be required to comply with these regulations.

Compliance with Title 26, Division 6, of the CCR, which would be monitored by the City, would reduce impacts associated with potential for accidental release during construction or occupancy of the WRSP Area, the risk of exposure to accidental release of hazardous materials from the PGWWTP, the potential for an increased demand for incident emergency response, and a temporary truck route for transportation of hazardous materials through the WRSP Area. Compliance with this regulation would ensure that businesses in the WRSP Area and public facilities where hazardous materials are used or stored (e.g., PGWWTP and groundwater) well sites adhere to regulations designed to prevent leakage and spills of material in transit and provide detailed information to clean-up crews in the event of an accident.

Workplace regulations addressing the use, storage, and disposal of hazardous materials in Title 8 of the CCR would apply to businesses (e.g., light-industrial uses) and public facilities (e.g., PGWWTP) in and adjacent to the SOI Amendment Area. Compliance with these regulations would be monitored, in part, by the Roseville Fire Department when it performs hazardous materials inspections. Other mechanisms in place to enforce the Title 8 regulations include compliance audits and reporting to local and State agencies. Implementation of the workplace regulations would further reduce the potential for hazardous materials releases.

Implementation of Title 49, Parts 171-180, of the Code of Federal Regulations would reduce any impacts associated with the potential for accidental release during construction or occupancy of the WRSP if implemented, by transporters delivering hazardous materials to the WRSP Area or PGWWTP or picking up hazardous waste. These regulations establish standards by which hazardous materials will be transported, within and adjacent to the SOI Amendment Area.

Implementation of existing General Plan Policy SE-1, which addresses hazardous materials disclosure, and compliance with applicable federal and State laws and regulations that are administered and enforced by the CUPA (Roseville Fire Department), and Roseville Fire Department standards (the local agency that implements applicable hazardous materials-related sections of the Uniform Fire Code and Uniform Building Code) would reduce impacts associated with the routine use, storage, and transportation of hazardous materials in the SOI Amendment Area to a **less-than-significant** level.

IMPACT 4.9-2:	**INCREASED DEMAND FOR HAZARDOUS MATERIALS INCIDENT EMERGENCY RESPONSE.**	
Applicable Policies and Regulations:	General Plan Policies SE-1, SD-2 California Code of Regulations Titles 8, 22, 26 Uniform Building Code, Uniform Fire Code Roseville Fire Department/CUPA permitting and enforcement	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Significant
Mitigation Measures:	None required	MM 4.10-3 (Construct new fire station)
Significance after Mitigation:	Less Than Significant	Less Than Significant

Emergency Response

Development in the Project Area would increase the use of hazardous materials, so additional hazardous materials emergency response capabilities would be needed. Implementation of applicable regulations and standards (e.g., Uniform Fire Code, hazardous materials management laws and regulation

monitored and enforced by the CUPA [Roseville Fire Department], etc.) described below is an important component of reducing potential risks associated with hazardous materials use. The hazardous materials disclosure provisions of General Plan Policy SE-1 are intended to ensure that preventative steps are taken to minimize the occurrence of hazardous materials incidents and to establish response procedures should such incidents occur. Impacts associated with increased demand for hazardous material emergency response for both the WRSP and Remainder Areas are discussed below.

West Roseville Specific Plan

The increase in the amount of hazardous materials within the WRSP Area would require additional hazardous materials emergency response capabilities, as compared to existing conditions. In the event of an emergency, the Roseville Fire Department hazardous materials response protocols, operational, and administrative procedures contained in the Emergency Plan would be critical in safely managing a hazardous materials incident involving the WRSP Area.

According to the Roseville General Plan, Section VIII (Safety Element), targeted response times have not been met consistently, and there is a need for additional fire service. As described in Section 4.10 (Public Services), one permanent fire station has been identified in the WRSP that would maintain adequate response times. Thus, conformance with the CCR, UBC, and Uniform Fire Code, as well as development of the additional fire station in the WRSP Area, as discussed in Impact 4.10-2 in Section 4.10 (Public Services), would provide hazardous materials incident response services. In addition, General Plan Policy SE-1 and compliance with applicable federal and State laws that are administered and enforced by the CUPA (Roseville Fire Department) standards would ensure that this impact would be **less than significant**.

Remainder Area

Residential and commercial development in the Remainder Area would further increase the demand for hazardous materials incident emergency response, which would be provided by the Roseville Fire Department. The location of specific activities and a fire station have not been determined, so it is unknown whether adequate emergency response would be available to the Remainder Area in a timely manner, as required under General Plan Policy SD-2. This is considered a potentially significant impact. However, with implementation of MM 4.10-3, which requires construction of an additional fire station to meet response time goals, as discussed in Section 4.10 (Public Services), this impact would be **less than significant** by ensuring that emergency response services would be available to the entire Remainder Area.

IMPACT 4.9-3	RISK OF EXPOSURE TO ACCIDENTAL RELEASES OF HAZARDOUS MATERIALS FROM THE PLEASANT GROVE WASTEWATER TREATMENT PLANT.	
Applicable Policies and Regulations	Code of Federal Regulations Titles 40 and 49 California Code of Regulations Titles 8, 22, 26 Uniform Building Code, Uniform Fire Code Roseville Fire Department/CUPA permitting and enforcement	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

West Roseville Specific Plan/Remainder Area

The proposed project includes development adjacent to the nearly completed PGWWTP, as shown in Figure 2-3 (West Roseville Specific Plan Land Use Plan) in Chapter 2 (Project Description). The PGWWTP would be operational prior to occupancy of the WRSP Area or development of the Remainder Area. Operation of the PGWWTP would involve the use and storage of chemicals. As noted in the setting, the use of hazardous materials is closely regulated. These regulations include federal hazardous materials and transportation regulations in Titles 40 and 49 of the Code of Federal Regulations, State workplace hazards regulations (Title 8 of the CCR), Titles 22 and 26 of the CCR that address hazardous materials and wastes, and elements of the Uniform Building Code and Uniform Fire Code. Title 49 related to the transportation of hazardous materials is enforced primarily by the Department of Transportation, and the California Highway Patrol. Title 22 is enforced by the Roseville Fire Department, as the CUPA for Roseville. Although regulations are in place to minimize hazards, there is a potential for an inadvertent chemical release. The most likely type of release would be a spill from a storage tank or when chemicals are transferred from delivery vehicles to storage areas. For a discussion of potential toxic air contaminant emissions, please see Section 4.4 (Air Quality).

In conjunction with the environmental analysis of the PGWWTP in 1996, a 1,000-foot non-residential buffer was established around the PGWWTP restricting land use to non-residential development to minimize risks to sensitive off-site land uses. The land use buffer is illustrated by Figure 4.9-2 (1000-Foot Buffer). Although the buffer was originally intended to mitigate hazards associated with the use of chlorine gas, current plans are to use hazardous sodium hypochlorite, which is typically less hazardous than chlorine gas. Nonetheless, the 1,000-foot buffer has been retained. The WRSP designates land within the 1,000-foot buffer commercial, light-industrial, public/quasi-public, park, and open space.

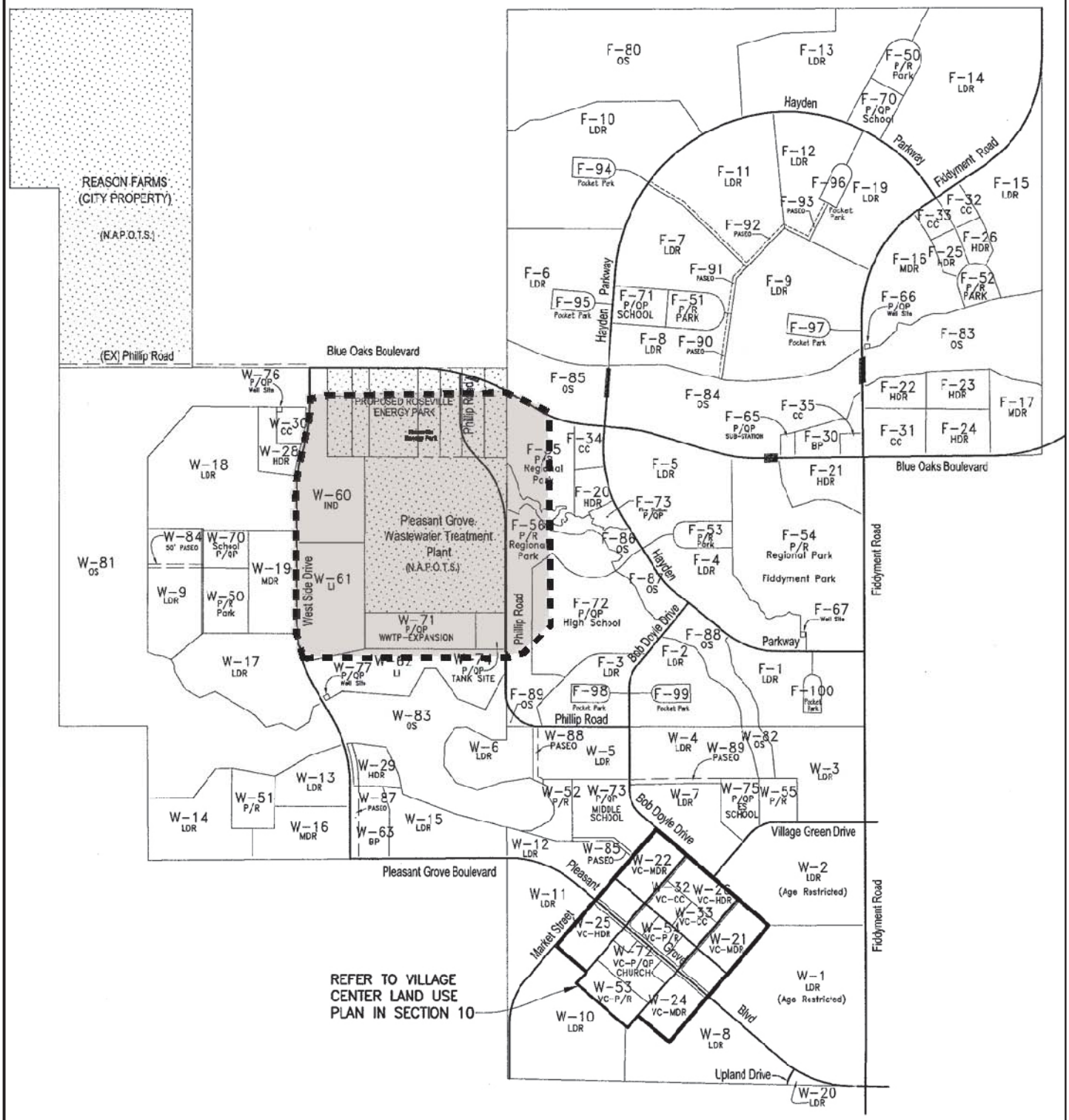


FIGURE **4.9-2**

PGWWTP 1,000-Foot Buffer Area

Scale: 1" = 2,000'

10659-00

Source: West Roseville Specific Plan, 2003

City of Roseville

Furthermore, the PGWWTP has been designed so that all site drainage is kept on-site. Therefore, in an event a chemical were to be released on-site, it would be routed to the treatment plant's head works where it would enter the influent waste stream for treatment. The City of Roseville Fire Marshal reviewed the anticipated chemical use and plant operational design in August 2002 for potential off-site consequences at the WRSP Area and concluded off-site consequences were not likely to occur. In order to reduce the likelihood of incompatible land uses adjacent to the PGWWTP, the Roseville Fire Department recommended certain light industrial land uses in the WRSP Area adjacent to the plant be designated under the Conditional Use category.[205] A list of uses that would be subject to a Conditional Use Permit can be found in Section 4.1 (Land Use and Agricultural Resources). Any development in the Remainder Area would also be restricted to non-residential uses within 1,000 feet of the PGWWTP.

There is no evidence that operation of the PGWWTP would result in any conditions that would unduly expose future occupants of the SOI Amendment Area to unmitigated risks. No residential uses would be located within 1,000 feet of the plant. Buildings (classrooms and teaching facilities) associated with the proposed high school would be located over 1,000 feet from the PGWWTP. Plant operations would be required to comply with numerous hazardous materials laws and regulations that were adopted to ensure that potential risks associated with the use of chemicals at facilities such as wastewater treatment plants would not present an unacceptable risk to human health and the environment. For these reasons, this is considered a **less-than-significant** impact. Please see Impact 4.9-8 for a discussion of hazardous materials deliveries on roadways through the WRSP Area.

IMPACT 4.9-4:	INCREASED RISK OF SOIL OR WATER CONTAMINATION FROM IMPROPER DISPOSAL OF HOUSEHOLD HAZARDOUS WASTES.	
Applicable Policies and Regulations:	City of Roseville Stormwater Management Program City of Roseville Household Hazardous Waste Program	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

[205] Dennis M. Mathisen, Fire Marshal, Roseville Fire Department, internal memo to Kathy Pease, City of Roseville, August 20, 2002

West Roseville Specific Plan/Remainder Area

Roseville residents and those in Placer County may dispose of household hazardous wastes on Saturdays at the Western Placer Waste Management Authority (recycling facility) located at Athens and Fiddyment Roads.

Residential and commercial uses in the SOI Amendment Area would generate household hazardous material wastes, such as used paints, automotive fluids, unused or unwanted pesticides and herbicides, photographic chemicals, and others. A resulting increase in hazardous waste disposal in residential trash pick-ups, dumpsters, transfer stations, and landfills would accordingly occur. The disposal of household hazardous wastes into containers or facilities not designed for such materials can cause fires or explosions. Illicit disposal adjacent to or into Pleasant Grove and Kaseberg Creeks would cause soil, surface water, or groundwater contamination that would affect use of these resources.

Current household hazardous waste programs in the City include a drop-off program for used motor oil and periodic household hazardous waste drop-off days. The City has also developed a permanent drop-off location, in conjunction with a regional Materials Recovery Facility (MRF), which provides for the removal of hazardous materials in delivered refuse prior to disposal in the landfill.[206] In addition, the Monitoring and Reporting Element of the City's SWMP (refer to Section 4.12, Hydrology, Water Quality, and Groundwater) includes procedures for random monitoring (testing and visual observation) for illicit or illegal disposal of hazardous materials to waterways. Implementation of these programs would minimize impacts associated with risk of exposure due to improper disposal of household hazardous wastes, reducing impacts to a **less-than-significant** level.

IMPACT 4.9-5:	SOIL OR GROUNDWATER CONTAMINATION RELATED TO PAST USES.	
Applicable Policies and Regulations:	California Code of Regulations Titles 26 and 27 Code of Federal Regulations Title 40 California Education Code Section 17210 *et seq.*	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.9-1 (Identify and remediate soil contamination)	MM 4.9-2 (Soil contamination policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

[206] City of Roseville, *Comprehensive Land Use Element Project Update,* February 1995

West Roseville Specific Plan

Preliminary Environmental Site Assessments (ESAs) have been performed for the two properties within the SOI Amendment Area. The ESA for the Fiddyment Ranch property recommended soil sampling at the fuel storage tank, pesticide use areas, and locations containing debris (including the household dump) to identify whether soils have been adversely affected by historic uses, and remediation, as necessary, prior to grading. In addition, the report recommended that existing wells that will not be used should be properly closed to minimize the potential for contamination pathways and because of the physical hazard they would present.[207] The ESA for the Westpark property indicated miscellaneous debris observed on the property was not considered hazardous, but removal prior to site development was recommended.

Based on the information presented in the assessment reports, some locations would contain elevated levels of contaminants in soils. Depending on the concentration and extent, soils contaminated with products containing hazardous substances would present a human health risk during construction activities. Further, it is possible that not all septic tanks, wells, or other underground storage devices or conveyance systems have been identified, because these would have been installed prior to permitting requirements, or additional information would have become available in agency files or databases since 1999, when the ESAs were performed.

Soil-disturbing activities would expose workers to contaminated debris, elevated levels of chemicals that would be hazardous, or hazardous substances would be inadvertently spread, resulting in a greater aerial extent of contamination. Soil (or groundwater) containing elevated levels of contaminants, if left unmanaged, would pose a health risk to site occupants. This is considered a potentially significant impact.

Implementation of applicable regulations in the CCR and Title 40 of the CFR by the Applicant, under the oversight of the City and/or RWQCB, would ensure that soil contamination, if any, as a result of past uses is remediated according to established protocols.

Implementation of MM 4.9-1 would reduce the risk of exposure to site contamination to a **less-than-significant** level for the WRSP Area by ensuring that known or potentially hazardous site conditions are identified and appropriately managed in accordance with regulations adopted prior to development.

[207] Rosewood Environmental Engineering, *Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California,* August 1999, pp. 30–34

It should be noted that the California Education Code requires site-specific information for school site development, including approval from DTSC that proposed school site(s) are free of contaminants that would pose a risk to students and faculty. School sites have been designated in the land use plan for the WRSP. Although all the steps in the DTSC assessment process have not been completed, the district would be required under the California Education Code to complete the necessary assessments to insure development of proposed school sites would not expose children and teachers to risks associated with contaminated sites.

Remainder Area

As noted in the Environmental Setting, it is assumed that grassland and dry-farmed sites, such as those in the Remainder Area, were treated with little or no agricultural chemicals such as pesticides or herbicides. However, a Phase 1 ESA has not been prepared for the Remainder Area to determine whether past uses have adversely affected soil or groundwater conditions. Similar to the effects described for the WRSP, development of sites where undetermined potential for soil or groundwater contamination exists would result in the inadvertent exposure of construction workers or site occupants to adverse health effects. The total effect of developing the Remainder Area would increase the number of people who would be exposed to such hazards. This is considered a potentially significant impact.

Implementation of applicable regulations in the CCR and Title 40 of the CFR by the Applicant, under the oversight of the City and/or RWQCB, would ensure that soil contamination, if any, as a result of past uses is remediated according to established protocols.

Implementation of MM 4.9-2 would reduce this impact for the Remainder Area to a **less-than-significant** level by ensuring that, prior to development, appropriate assessments be conducted, and, if contaminated soil or groundwater is present, remediation be completed prior to development.

IMPACT 4.9-6:	USE OF RECYCLED WATER FOR LANDSCAPE IRRIGATION IN AREAS ACCESSIBLE TO THE PUBLIC.	
Applicable Policies and Regulations:	California Code of Regulations Title 22	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None required	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant

West Roseville Specific Plan/Remainder Area

Recycled water from the PGWWTP would be conveyed to the SOI Amendment Area and used for irrigation in parks and for irrigation of landscaping in other places accessed by the public. Individuals using or maintaining the parks and landscaped facilities in areas accessible to the public would come in contact with the water when these features are actively irrigated, from water adhering to grass and other landscaping, or through any remaining water that has not yet infiltrated into the subsurface. Ponding would be minimized by controlling the rates and frequency of application, as required under Municipal Code Chapter 14.17 and the City's "Rules and Regulations for the Use of Recycled Water" (refer to Section 4.11, Public Utilities).

As noted in Section 4.11.3 (Public Utilities, Wastewater), the PGWWTP would be designed and operated to produce effluent that meets or exceeds standards consistent with "Disinfected Tertiary Recycled Water" as defined by Title 22 of the California Code of Regulations (Division 4, Chapter 3, Section 60301.230). Water meeting these standards (referred to as "tertiary-2.2 criteria") may be used for unrestricted use, which includes (but is not limited to) body-contact for recreation (swimming), irrigation of food crops, and irrigation of parks, playgrounds, and schoolyards. The DHS considers a properly filtered and disinfected water meeting the tertiary-2.2 standard to be essentially pathogen-free and adequately protective of public health.[208] As previously noted, prior to using the recycled water for irrigation, the City would be required to prepare an Engineering Report in accordance with Title 22 of the CCR, which would be submitted to and reviewed by DHS. The City would be responsible for ensuring the application sites comply with the siting and use requirements established in Section 60310 of the CCR. The cross-connection requirements would ensure that recycled water does not enter the potable water distribution system.

Compliance with Title 22, Division 4.5, would reduce impacts associated with the use of recycled water for landscape irrigation in areas accessible to the public by requiring the City's PGWWTP to be designed and operated to produce effluent that meets or exceeds standards consistent with "Disinfected Tertiary Recycled Water," and requiring the City to prepare an engineering report to be submitted to and reviewed by DHS, as discussed in Impact 4.9-6.

Because there is no evidence that use of tertiary-2.2 recycled water would result in any conditions that would unduly expose future occupants to unmitigated risks, this is considered a **less-than-significant** impact.

[208] Jeff Stone, California Department of Health Services, "San Diego Unified School District Unrestricted Landscape Irrigation," letter to San Diego City Schools, June 24, 1999

IMPACT 4.9-7:	POTENTIAL EFFECTS OF ELECTROMAGNETIC FIELDS (EMFS) FROM HIGH-VOLTAGE TRANSMISSION LINES	
Applicable Policies and Regulations:	General Plan Policies SG-1, SG-2	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	No Impact	Less Than Significant
Mitigation Measures	None required	None required
Significance after Mitigation:	No Impact	Less Than Significant

Existing high voltage transmission lines and substations would be potential sources of Electromagnetic fields (EMFs) in the Remainder Area portion of the SOI Amendment Area. Electromagnetic field levels along the transmission systems are anticipated to be within a range of numerical limits adopted by some states in the U.S., but not California. However, the risks are considered small, given the current understanding of EMF and health effects.[209]

As discussed in the Environmental Setting, current research to date has not identified a relationship between EMF exposure and adverse health effect. However, potential effects are discussed below.

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No new high-voltage transmission lines are proposed in the WRSP, and there are no existing lines where permanent, occupied structures would be located. There would be **no impact**.

Remainder Area

An existing 230-kV electrical receiving station and existing high-voltage transmission lines are located in the Remainder Area on the west side of Fiddyment Road, approximately 375 feet south of Pleasant Grove Boulevard. The transmission lines are a source of EMF that would be present in the Remainder Area.

Development of the Remainder Area would increase the number of people who would be exposed to potential risks associated with EMF. However, as discussed above with implementation of existing City policies SG-1 and SG-2, which address siting of development in proximity to sources of EMF, the impact of development in the Remainder Area with respect to EMFs would be **less than significant**.

[209] Roseville Energy Park Application for Certification, July 2001. pp.5.16-18.

IMPACT 4.9-8:	TEMPORARY TRUCK ROUTE FOR TRANSPORTATION OF HAZARDOUS MATERIALS THROUGH THE WRSP AREA	
Applicable Policies and Regulations:	California Vehicle Code, Section 31303 California Code of Regulations Title 26 Code of Federal Regulations Title 49	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	No Impact
Mitigation Measures:	MM 4.9-3 (Temporary truck route notification)	None required
Significance after Mitigation:	Less Than Significant	No Impact

West Roseville Specific Plan

As a part of the WRSP, Phillip Road would be realigned and extended north to intersect with an extension of Blue Oaks Boulevard. Until Blue Oaks Boulevard is extended to intersect with the re-aligned Phillip Road, deliveries to the PGWWTP proposed Roseville Energy Park and well sites would be provided by a temporary truck route. The proposed temporary truck route would extend west on Blue Oaks Boulevard, south on Fiddyment Road, west on Hayden Parkway and south on Bob Doyle Drive, west on Phillip Road and north to the PGWWTP (shown on Figure 4.9-1). Hayden Parkway and Bob Doyle Drive would traverse residential areas. Because of regulations governing transport of hazardous materials (CFR, Title 49, and California Vehicle Code Section 31303) and hazardous materials storage regulations (Title 26 of the CCR), the temporary use of these roads is considered a **less-than-significant** impact.

As discussed above, a temporary truck route to access the PGWWTP is proposed as part of the WRSP. The transportation of chemicals and supplies to the City's PGWWTP would be along Blue Oaks Boulevard and Phillip Road, and it is anticipated that there will be a minimum of one trip per week. The chemicals expected to be transported are shown in Table 4.9-1.

To minimize the potential for accidental spills of hazardous materials during transit, suppliers and transporters are required to follow federal and State regulations for packaging and handling hazardous materials. These regulations set forth requirements for testing of shipping containers, marking containers and vehicles, inspecting vehicles, and training drivers. Hazardous waste shipping requirements are subject to more stringent requirements. Because of these requirements, containers are unlikely to release their contents in the event of an accident. For this reason, the consequences of a vehicle accident involving hazardous materials in the project area would likely be minimal, and the impact would be **less**

than significant. Nonetheless, the transport of such materials through a residential neighborhood would be a concern to local residents, and would slightly increase the risk of exposure.

Therefore, MM 4.9-3 is recommended to ensure that residences along the route are notified of the use of these roads as a temporary truck route for chemical deliveries to the PGWWTP. Compliance with California Vehicle Code Section 31303 would reduce impacts associated with a temporary truck route for transportation of hazardous materials through the WRSP Area by requiring that all hazardous materials be transported by routes which offer the least overall transit time. In addition, the City will require that construction of Blue Oaks Boulevard to Phillip Road, and the Phillip Road realignment to connect to Blue Oaks Boulevard, commence within five years of the first residential building permit along the temporary truck route to ensure the timely construction of the roadway.

The use of Hayden Parkway and Bob Doyle Drive as a truck route would terminate with the extension of Blue Oaks Boulevard and Phillip Road.

MM 4.9-3 is recommended, although not required, to ensure that residents are aware of the use of Phillip Road as a temporary truck route.

Remainder Area

The Remainder Area lies outside of the proposed temporary and permanent truck route. Therefore, there would be **no impact** associated with truck trips to the PGWWTP in the entire Remainder Area.

IMPACT 4.9-9	SITING OF A SCHOOL WITHIN ONE-FOURTH MILE OF THE HANDLING OR TRANSPORTATION OF HAZARDOUS MATERIALS	
Applicable Policies and Regulations:	California Health and Safety Code	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Significant
Mitigation Measures:	None required	None available
Significance after Mitigation:	Less Than Significant	Significant and Unavoidable

West Roseville Specific Plan

Section 15186 of the CEQA Guidelines establishes requirements for school projects, as well as projects near schools, to ensure that potential health impacts resulting from exposure to hazardous materials, wastes, and substances are examined and disclosed in an environmental document. Section 15186 of the CEQA Guidelines states that hazardous materials that must be considered a risk are those which may impose a health or safety hazard to persons who would attend or would be employed at the school.

Specifically, when a project located within one-quarter mile of a school involves the construction or alteration of a facility that might reasonably be anticipated to emit hazardous materials or a mixture containing acutely hazardous materials in a quantity equal to or greater than that specified in Section 25534 of the California Health and Safety Code, the Lead Agency must (1) consult with the affected school district regarding the potential impact of the project when circulating the environmental document and (2) notify the affected school district in writing prior to approval and certification of the environmental document. The high school in the WRSP Area is proposed to be located near the southeast corner of the PGWTTP. As such, a portion of the proposed high school site containing play fields would be located within one-quarter mile of the PGWWTP. No educational structures (classrooms and teaching facilities) would be located within one-fourth mile of the PGWWTP. The one-fourth mile criterion for notification and consultation is required by CEQA and relates to any source of hazardous materials. It is important to note that it is not related to the 1,000-foot buffer established by the 1996 Roseville Regional Wastewater Treatment Service Area Master Plan EIR.

The applicant has discussed the proposed high school location with the school district and has agreed to notify the district in writing prior to approval and certification of the environmental document. Given compliance with Section 15186 of the CEQA Guidelines, this impact is found to be **less than significant**.

Remainder Area

In the Remainder Area, implementation of the proposed project may place new industrial and commercial uses, that use, store, and dispose of hazardous materials within ¼-mile of school sites. Schools are considered sensitive receptors. The exact use, intensity, or nature of development of the Remainder Area is not certain at this time. However, it is assumed that some type and level of development similar to that proposed for the WRSP Area would occur within the Remainder Area in the future. Therefore, it can be reasonably assumed that schools would be located in the Remainder Area in the future.

Due to the use, transport, storage, and disposal of potentially hazardous materials at new industrial and commercial land uses, adjacent sensitive receptors would be exposed to greater risk of exposure to hazardous materials, waste, or emissions. Accidental release or combustion of hazardous materials at developments would endanger students in the surrounding community. Given that the exact locations of potential school sites are currently unknown, the potential exists for future schools to be located near hazardous materials. Therefore, this impact is considered **significant and unavoidable**.

Although hazardous materials used and waste generated from new developments may pose a health risk to sensitive land uses nearby, all businesses that handle or have on-site transportation of hazardous

materials would be required to comply with the provisions of applicable federal, State, and local regulations. However, as specific project impacts are currently unknown, it cannot be anticipated that applicable regulations would reduce potential impacts to hazardous material to a less-than-significant level. Thus, impacts would remain **significant and unavoidable**.

Mitigation Measures

MM 4.9-1: *Identify and Remediate Soil Contamination (Impact 4.9-5—WRSP)*

Prior to site development in the WRSP Area, recommended testing and remediation identified in the Phase I ESA shall be performed and existing groundwater wells shall be properly closed.

If evidence of soil contamination is encountered in previously unidentified locations in the WRSP Area, work shall cease until the area can be tested, and, if necessary, remediated. Remediation activities could include removal of contaminated soil and/or on-site treatment. As part of this process, the City shall ensure that any necessary investigation and/or remediation activities conducted in the WRSP Area are coordinated with the Roseville Fire Department, Placer County Division of Environmental Health, and, if needed, other appropriate state and/or local agencies. Once a site is remediated, construction may continue. The City shall also continue to update its records concerning contamination or hazards that could be present at facilities or sites adjacent to WRSP Area, and take necessary action to ensure that the health and safety of the public is protected.

MM 4.9-2: *Soil Contamination Policies (Impact 4.9-5—Remainder Area)*

Specific Plans and/or other development proposals for the Remainder Area shall include a Phase I ESA and require that recommended testing and remediation identified in the Phase I ESA be performed.

Specific Plan and/or development proposal policies or conditions shall require that, if evidence of soil contamination is encountered in previously unidentified locations in the Remainder Area to be developed, work shall cease until the area can be tested, and, if necessary, remediated. As part of this process, the City shall ensure that any necessary investigation and/or remediation activities conducted in the Remainder Area are coordinated with the Roseville Fire Department, Placer County Division of Environmental Health, and, if needed, other appropriate state and/or local agencies. Once a site is remediated, construction may continue. The City shall also continue to update its records concerning contamination or hazards that could be present at facilities or sites adjacent to the SOI Amendment Area, and take necessary action to ensure that the health and safety of the public is protected.

MM 4.9-3: *Temporary Truck Route Notification (Impact 4.9-8 – WRSP)*

Residents purchasing homes along Hayden Parkway and Bob Doyle Drive shall be notified that Hayden Parkway and Bob Doyle Drive will be used as a temporary truck route to transport potentially hazardous materials to the PGWWTP, and potentially the Roseville Energy Park until the extensions of Blue Oaks Boulevard and Phillip Road are constructed. In addition, signage shall be installed along Hayden Parkway and Bob Doyle Drive notifying residents and visitors that these roadways are used as a temporary truck route.

4.10 PUBLIC SERVICES

4.10.1 Introduction

This section describes public services provided in the City of Roseville, including law enforcement, fire protection, schools, libraries, and parks and recreation. This section also identifies the anticipated demand for these services resulting from future development within the SOI Amendment Area.

For this section, the following documents were reviewed:

- *West Roseville Specific Plan Feasibility Analysis Report*
- *West Roseville Specific Plan* (2003)
- *Vision 2010 Comprehensive Parks and Recreation Master Plan* (1995)
- Previous studies prepared for other projects in the City of Roseville

All of these documents are available for review at the City of Roseville Permit Center, 311 Vernon Street, Roseville, California.

The following issues were raised in NOP comment letters (see Appendix B):

- The status and statistics relating to existing schools and recreation facilities
- School funding
- Impacts on Folsom Lake State Park
- Concerns regarding increased traffic along Interstate 80 (I-80), State Route 65 (SR-65), and Baseline Road as a result of the WRSP and SOI Amendment, and the ability of the California Highway Patrol (CHP) to adequately patrol those areas

The following issues were raised during the NOP Scoping Meeting:

- The library level of service is too low and more libraries are needed Citywide
- There could be air quality impacts to schools
- More passive open space is needed in the WRSP Area
- More public transit and bikeways are needed
- A Teen Center should be provided in the SOI Amendment Area
- Financial costs associated with park construction, schools construction, and utilities provision are a concern

School capacity, recreational facilities, police protection, and library services are addressed in this section. Impacts associated with air quality can be found in Section 4.4, Air Quality. Recreational amenities will be available to all residents and site users, including teens; however, no Teen Center is proposed at this time. A Teen Center is not required under CEQA or by City policy, but this comment is hereby forwarded to the decision makers. Impacts on Folsom Lake State Park are not addressed because the WRSP contains regional park facilities that should meet project demand for active and passive park use. While project residents could visit Folsom Lake, such use would be intermittent, and would represent a very small portion of overall use, because the SOI Amendment Area is not in proximity to the Lake. Financial costs associated with the construction of facilities are addressed in the financing plan being prepared for the WRSP.

As discussed in Chapter 1 of this EIR, Introduction, this EIR evaluates the impacts of the WRSP, which would include a Sphere of Influence Amendment and annexation to the City, at a project-specific level. Because a Sphere of Influence Amendment is the only action proposed for the Remainder Area (that portion of the SOI Amendment Area outside of the WRSP), a program-level analysis is provided for the full SOI Amendment. In order to conduct the analysis, development assumptions are made for the Remainder Area (see Chapter 2, Project Description, for details). Figure 1-1 (SOI Amendment Area) in Chapter 1, Introduction, identifies the boundaries of the WRSP Area and Remainder Area (which combined comprise the entire SOI Amendment Area).

As discussed in the introduction to Chapter 4 of this EIR, Environmental Analysis, the WRSP described in the NOP is different from the WRSP proposed at this time. However, the changes to the WRSP would not affect the analysis of public services, because demand for services is based on population, and the number of residential units would remain at 8,430 units.

LAW ENFORCEMENT

4.10.2 Environmental Setting

The Roseville Police Department (RPD) provides police protection services to the City of Roseville. The RPD has a force of 95 sworn officers and 97.5 nonsworn employees headquartered at 1051 Junction Boulevard, approximately four miles from the WRSP Area.[210] Sworn officers are responsible for emergency and law enforcement-related activities. Nonsworn employees are responsible for specific duties including animal control, dispatch, record maintenance, jail management, and clerical tasks. The

[210] Dee Dee Gunther, Administrative Analyst, City of Roseville Police Department, personal communication, May 31, 2002.

RPD has a department training plan that ensures that personnel are sufficiently prepared to fulfill their responsibilities.[211] Funding for law enforcement services comes from the City's General Fund that primarily includes revenue generated by sales tax and property taxes.

The RPD has divided the City into two major patrol beats, east and west of I-80, that include 34 neighborhood areas. The eastern patrol beat has 10 neighborhood areas, and the western beat has 24 neighborhood areas.[212] The western patrol beat extends from I-80 to the western boundary of the City limits. In addition to routine patrol, traffic enforcement, and responding to calls for service, the RPD assigns a beat officer to each neighborhood area on a long-term basis. Each beat officer monitors his or her assigned area for recurring crime and social disorder problems, helps organize neighborhood groups, attends community meetings, and works with the residents and businesses to solve problems and maintain a high quality of life.

The Placer County Sheriff's Department is responsible for providing law enforcement services to the unincorporated areas immediately adjacent to the City, including the SOI Amendment Area. This area is served by the South Placer Sheriff's Substation. The Sheriff's Department also serves as the County Coroner and serves legal papers in all areas of the County. An interagency coordination program between the RPD and the Placer County Sheriff's Department exists. Roseville Police Department has interoperability agreements with the cities of Rocklin and Lincoln to provide 911 and dispatching services in the event of an evacuation or system failure.[213]

The RPD's Community Services Unit is responsible for community-based crime prevention and public education. The Unit administers Neighborhood Watch programs and community relations events. It acts as a liaison between the department and the Roseville Coalition of Neighborhood Associations (RCONA), organizing neighborhood areas. Each organization is paired with at least one beat officer. The Youth Services Division assigns police officers to every public elementary, intermediate, and high school in the City.

The RPD has indicated that flexibility is a key component in the provision of competent police service, and that standard ratios of police officers to population do not define adequacy of protection. Flexibility in service ratios allows the department to better respond to changes in the frequency and nature of crimes in the City. For this reason, the City has not adopted a police-to-population ratio. RPD has indicated that even without an adopted ratio, they would not want the ratio to fall below 1.2 officers per

[211] City of Roseville, North Roseville Specific Plan Draft EIR, page 4.12-10.
[212] Dee Dee Gunther, Administrative Analyst, City of Roseville Police Department, personal communication, May 31, 2002.
[213] Dee Dee Gunther, Administrative Analyst, City of Roseville Police Department, personal communication, May 31, 2002.

1,000 persons.[214] However, the Department is currently below the desired police-to-population ratio.[215] The RPD has also not adopted a formal response time standard, but the current response time is approximately 3 to 5 minutes or less for an emergency call.[216]

4.10.3 Regulatory Setting

Federal and State

There are no specific federal or State regulations pertaining to law enforcement applicable to the SOI Amendment Area.

Local

WRSP

The WRSP will comply with the RPD recommendations regarding safety and security.

City of Roseville

Revenues generated by sales tax and property taxes supply the City of Roseville's General Fund to pay for additional law enforcement personnel.

The City of Roseville General Plan includes goals and policies for police services. Please see Appendix C for a complete list of all applicable City goals and policies.

4.10.4 Impacts and Mitigation Measures

Methods of Analysis

Although the RPD does not have an adopted police-to-population ratio, it has indicated that a ratio of 1.2 officers per 1,000 persons is desirable. For this analysis, a ratio of 1.2 officers is used as a threshold to determine adequate service. Since the RPD has also not adopted a formal response time standard, this analysis assumes maintenance of the current response time, approximately 3 to 5 minutes or less for an emergency call.

[214] Dee Dee Gunther, Administrative Analyst, City of Roseville Police Department, personal communication, May 31, 2002.
[215] Dee Dee Gunther, Administrative Analyst, City of Roseville Police Department, personal communication, May 31, 2002.
[216] Dee Dee Gunther, Administrative Analyst, City of Roseville Police Department, personal communication, May 31, 2002.

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area would:

Create an increased demand for police protection services that would substantially interfere with the ability of the police department to provide adequate response time to the project site or require the construction of new facilities, or the physical alteration of existing facilities that could result in substantial adverse physical impacts on the environment.

Impacts

IMPACT 4.10-1:	INCREASED DEMAND FOR POLICE PROTECTION SERVICES.	
Applicable Policies and Regulations:	City of Roseville General Plan	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.10-1(a) (Increase number of police officers in the Roseville Police Department); MM 4.10-1(b) (Expand the Roseville Police Department Headquarters); MM 4.10-1(c) (Expand the voice radio communication system and data radio systems)	MM 4.10-2 (Law enforcement policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

West Roseville Specific Plan

The increased residential population resulting from the WRSP would create additional demand for police services. The WRSP would create approximately four additional neighborhood areas within the City's western patrol beat.[217] The WRSP would contribute a total of approximately 20,810 new residents to the area. Based on the desired ratio of 1.2 officers per 1,000 population, approximately 25 new officers would be required, consistent with City of Roseville General Plan goals and policies. More administrative support staff would also be needed to support the additional police force. An expansion to the Police Headquarters would likely be needed at buildout of the WRSP to accommodate the additional Department staff.[218] In addition, the existing police voice radio communication system and data radio

[217] Dee Dee Gunther, Administrative Analyst, City of Roseville Police Department, personal communication, May 31, 2002.
[218] Dee Dee Gunther, Administrative Analyst, City of Roseville Police Department, personal communication, May 31, 2002.

system would need to be expanded to serve the WRSP project site, including possibly an additional antenna tower.[219]

Revenues generated by sales tax and property taxes associated with development of the WRSP would increase the City's General Fund, a portion of which would be expected to pay for the additional law enforcement personnel needed to serve the WRSP. However, because the WRSP could require expanded police headquarters to accommodate new officers, and would require expanding the voice radio communication system and data radio system to provide internal and external communication within the WRSP Area to meet the demand for police services, the impact is considered significant.

MM 4.10-1(a) would ensure that an adequate number of officers would be added to the RPD to serve the WRSP. MM 4.10-1(b) would provide for expansion of the Police Headquarters, if needed, to accommodate the addition of new officers to the RPD as a result of the WRSP. MM 4.10-1(c) would ensure that the voice radio communication system and data radio system would be expanded to serve the WRSP. Expansion of these systems would ensure a less-than-significant impact on RPD communication systems by allowing the RPD to effectively serve the WRSP. Therefore, with implementation of MM 4.10-1(a) through MM 4.10-1(c), the impact on law enforcement would be **less than significant.** If future law enforcement structures were to be constructed or physically altered, construction and/or alteration activities could have potentially significant environmental impacts that would need to be addressed on a project-specific basis prior to approval and construction or alteration.

Remainder Area

It is assumed that the remaining portions of the Remainder Area would be developed at levels similar to those proposed in the WRSP. The Placer County Sheriff's Department would continue to serve the Remainder Area until (and if) it is annexed to the City, at which time the RPD would serve the area. The Remainder Area is assumed to be developed primarily with residential uses of a similar density and type proposed for the WRSP, so additional police personnel would be required. Buildout of the Remainder Area would generate approximately 18,722 new residents. Based on the City's desired ratio of 1.2 officers per 1,000 population, approximately 22.5 new officers would be required to service this area. This would be a significant impact. Implementation of MM 4.10-2 would ensure that personnel and facilities are adequate and would reduce the impact to a **less-than-significant** level.

[219] Dee Dee Gunther, Administrative Analyst, City of Roseville Police Department, personal communication, May 31, 2002.

FIRE PROTECTION

4.10.5 Environmental Setting

The Roseville Fire Department (RFD) provides fire protection, suppression, emergency medical services, and hazardous material management within the City of Roseville. The RFD operates six fire stations serving the City of Roseville. The RFD employs 80 staff members for fire operations, 9.48 Fire Prevention personnel, one fire training professional and 6.75 staff members for administrative support.[220]

The existing and planned fire stations are listed below and illustrated on Figure 4.10-1 (Existing and Proposed Fire Stations):

- **Station No. 1** at 401 Oak Street
- **Station No. 2** at 1398 Junction Boulevard
- **Station No. 3** at 1300 Cirby Way
- **Station No. 4** at 1900 Eureka Road
- **Station No. 5** at 1565 Pleasant Grove Boulevard
- **Station No. 6:** "Stoneridge Station" near the intersection of East Roseville Parkway and Sunrise Avenue
- **Station No. 7:** "Highlands Reserve Station" near Pleasant Grove Boulevard and SR-65 (planned for construction in Summer 2003 with allocated monies already in the 2002-2003 City budget)
- **Station No. 8:** "Blue Oaks Station" in the Del Webb development at Blue Oaks Boulevard and Fiddyment Road (construction likely to begin in 2005-2006)

The first responding station to the WRSP Area would be Station #8, the Blue Oaks Fire Station, once constructed. A site for this facility was secured in the Del Webb Specific Plan along Blue Oaks Boulevard approximately one mile east of the intersection of Blue Oaks Boulevard and Fiddyment Road. However, the Roseville Fire Department may choose to relocate this site to the east of Woodcreek Oaks Boulevard along Blue Oaks Boulevard to better serve the North Roseville Specific Plan, North Industrial Area and the North Central Roseville Specific Plan Area.[221]

Fire Station #5 would serve as the primary responding engine for the south portion of the WRSP Area accessible from Pleasant Grove Boulevard and Fiddyment Road. Station #5 is an interim station currently located in Mahany Park, east of the SOI Amendment Area. This location was constructed in 1997, and

[220] Dennis Mathisen, Fire Marshal, Roseville Fire Department, personal communication, July 3, 2002.
[221] City of Roseville, Draft West Roseville Specific Plan, April 2002, page 6-6.

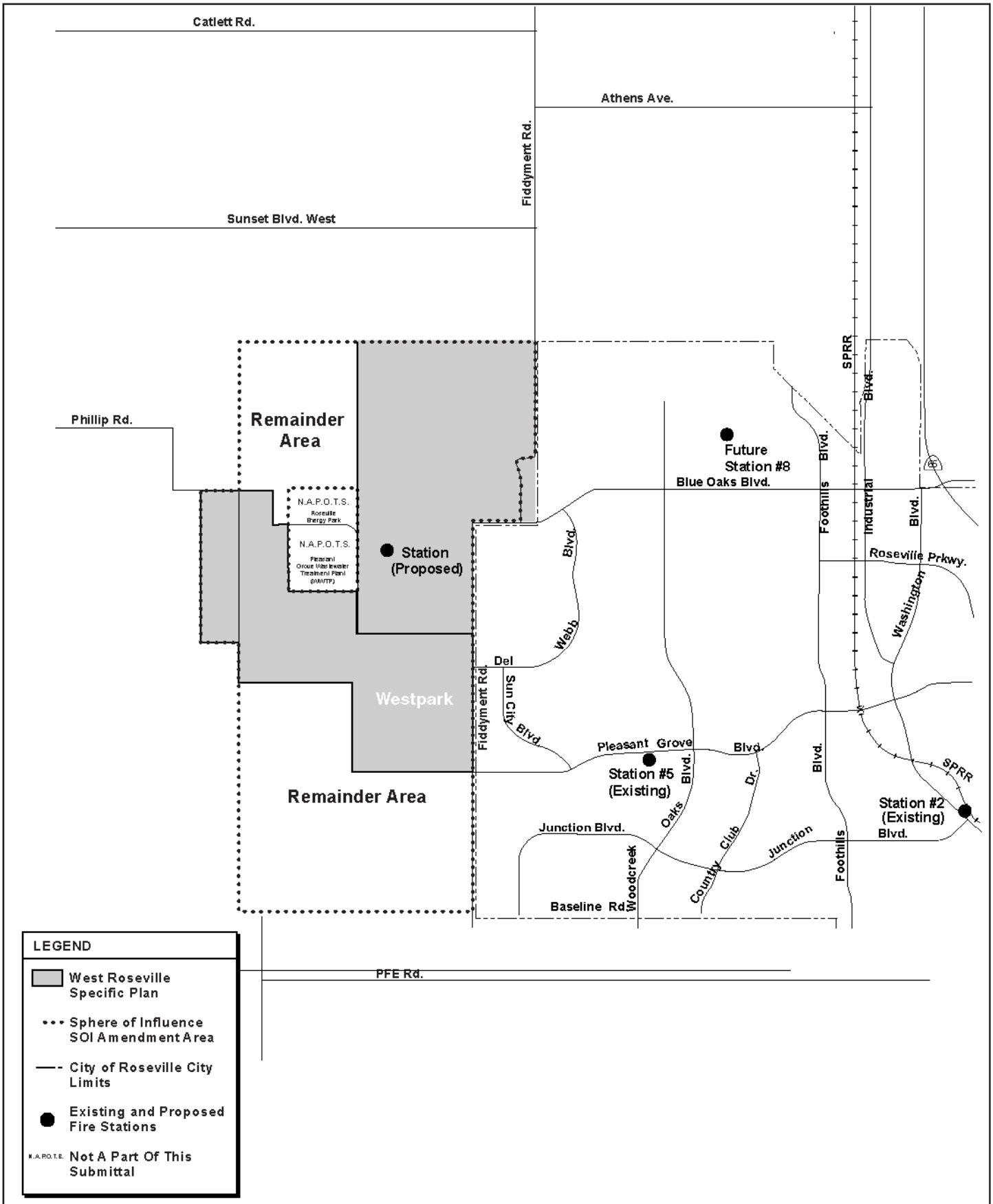


FIGURE **4.10-1**

Existing and Proposed Fire Stations

Not to Scale

10659-00

Source: Wade Associates, 2003; EIP Associates, 2003

City of Roseville

originally was projected to remain in this location until 2007. A different possible permanent location for Fire Station #5 has been identified within the Del Webb Specific Plan area along Pleasant Grove Boulevard. However, movement to a permanent location is not in the foreseeable future due to funding constraints.[222] Station #5 would be the first responding station to the WRSP Area until Station #8 and/or station(s) within the WRSP are constructed.

Station staffing depends on the type of station. Station #1 is a two-company house, with an engine company and a truck company. There are three to four personnel each shift per company and there are three 24-hour shifts. In the engine company, there are three personnel: 1 captain, 1 engineer, and 1 firefighter/paramedic. In the truck company, there are four personnel: 1 captain, 1 engineer, and 2 firefighters. The hazardous materials response team is also located at this station, requiring one Battalion Chief.[223]

Stations #2 through #5 are one-company houses, and also have three personnel each shift with three 24-hour shifts. In each of these stations, there are: 1 captain, 1 engineer, and 1 firefighter/paramedic.[224]

Each station has specific equipment, and can share the equipment as necessary.[225] The following is a list of each station's equipment:

- Station #1: engine, ladder truck, HazMat truck, Battalion chief's command vehicle, reserve engine
- Station #2: engine, Type III grass engine
- Station #3: engine, medium duty rescue unit
- Station #4: engine, Type IV grass engine, reserve engine
- Station #5: engine, Type IV grass engine
- Station #6: engine, Type III grass engine

The RFD has a mutual aid agreement with Placer County/California Department of Forestry and Sacramento Metro Fire District.[226] The RFD also an automatic aid agreement with the South Placer Fire District, the Rocklin Fire Department, and the Sacramento Metro Fire District. An automatic aid agreement with Placer County Fire/CDF is pending.[227]

[222] Dennis Mathisen, Fire Marshal, Roseville Fire Department, personal communication, July 3, 2002.
[223] Dennis Mathisen, Fire Marshal, Roseville Fire Department, personal communication, July 3, 2002.
[224] Dennis Mathisen, Fire Marshal, Roseville Fire Department, personal communication, July 3, 2002.
[225] Dennis Mathisen, Fire Marshal, Roseville Fire Department, personal communication, July 3, 2002.
[226] Dennis Mathisen, Fire Marshal, Roseville Fire Department, personal communication, July 3, 2002.
[227] Dennis Mathisen, Fire Marshal, Roseville Fire Department, personal communication, July 3, 2002.

The RFD does not necessarily associate higher population levels with the need for new fire stations. Instead, the RFD uses a risk assessment model in relation to existing fire stations and the number of engine/truck companies as the primary criterion when evaluating the need for a new fire station or additional staff. Large infill development can, for example, be adequately served by an existing, proximate station, while a remote smaller development could require a new facility. To maintain adequate fire protection, the RFD uses three different service standards documented in the City's General Plan: (1) respond to all emergencies within four minutes, 80 percent of the time; (2) maintain an ISO rating of 3; and (3) deliver 500 gallons per minute (GPM) to a fire scene within 10 minutes.[228] The emergencies are not broken down by type, such as fire response, basic life support or advanced life support. The Department strives to respond within four minutes in all cases.[229] The RFD's emergency fire response standards are being met 58 percent of the time within the existing City limits.[230]

A Standards of Response Coverage Study is currently underway and expected to be completed by the end of 2003. This document is a department self-audit of services and programs. It helps to reaffirm station locations, equipment and staffing placement. It also serves to assess response time goals.

4.10.6 Regulatory Setting

Federal and State

There are no specific federal or state regulations pertaining to fire protection associated with the SOI Amendment Area.

Local

City of Roseville

The City of Roseville General Plan includes goals and policies for fire protection services. Please see Appendix C for a complete list of all applicable City goals and policies.

The RFD traditionally receives its budget from the City's General Fund. For the fiscal year 2002-2003, the City has allocated $12,218,581 to the RFD. In 1984, to compensate for the City's rapid growth rate, the Fire Service Construction Tax was approved. This tax requires that 0.5 percent of the value of any new construction be collected as part of the building fee and designated for fire suppression and protection. For 2002-2003, the RFD will receive $678,900 from the Fire Service Construction Tax. These funds

[228] Dennis Mathisen, Fire Marshal, Roseville Fire Department, personal communication, July 3, 2002.
[229] Dennis Mathisen, Fire Marshal, Roseville Fire Department, personal communication, July 3, 2002.

supplement the General Fund and are specifically intended for capital improvements, such as fire stations and fire equipment. None of these funds are allocated to operating expenses, such as salaries or training. The tax will remain in effect until December 2009, at which time it will be considered for extension pursuant to Prop. 218 provisions which require voter approval for new local taxes. It has not yet been determined what additional funding sources will be used if the Fire Services Construction Tax is not renewed.

WRSP

The WRSP includes provisions that the timing of construction and staffing of fire stations will be consistent with the Fire Department's standards from its Response Coverage study

4.10.7 Impacts and Mitigation Measures

Methods of Analysis

The Roseville Fire Department does not have an adopted ratio of fire protection personnel to resident population. Instead, the impact analysis is based on the ability of the RFD to respond to all emergencies within four minutes, 80 percent of the time; maintain an ISO rating of 3; and deliver 500 gallons per minute (GPM) to a fire scene within 10 minutes.

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area could:

Create an increased demand for fire protection that would substantially interfere with the ability of the fire department to provide adequate response time to the project site or require the construction of new facilities, or the physical alteration of existing facilities, which could result in substantial adverse environmental impacts.

[230] Dennis Mathisen, Fire Marshal, Roseville Fire Department, personal communication, July 3, 2002.

Impacts

IMPACT 4.10-2:	INCREASED DEMAND ON FIRE PROTECTION SERVICES.	
Applicable Policies and Regulations:	City of Roseville General Plan Fire Service Construction Tax	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Significant
Mitigation Measures:	None Required	MM 4.10-3 (Construct new stations as needed); MM 4.10-4 (Demonstrate adequate response time or provisions); MM 4.10-5 (Identify appropriate fire station locations); and MM 4.10-6 (Fire prevention and suppression policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

At total buildout 15,833 units would be build in the Project Area. These residences, as well as commercial, industrial and public uses, would require fire protection services.

Project developers would be required to pay the Fire Service Construction Tax (Tax), which requires that 0.5 percent of the value of any new construction be collected as part of the building fee and designated for fire suppression and protection. These funds would help provide additional fire protection resources to serve the project site. This tax is in effect until December 2009 but could be renewed. If approval of the Project occurs before the Tax expires, monies from the Tax would continue to be collected to fund the buildout of fire capital improvements[231]. If approval of the Project occurs after the Fire Service Construction Tax and is not consequently renewed, additional funding would need to be secured to fund capital improvements and the construction of new stations. These funds could come from development fees or user fees, or from an agreement between the RFD and the developers within the Project Area, where a percentage of the funds necessary to increase staff to serve the Project Area would come from the developer. The City could also provide funds for personnel expansion.[232]

West Roseville Specific Plan

As part of the WRSP, annexation of the WRSP Area from Placer County to the City of Roseville would occur. Once the WRSP is approved, the RFD, rather than the Dry Creek Fire Protection District or the County Service Area 28, would serve the WRSP.

[231] Dennis Mathisen, Fire Marshal, Roseville Fire Department, personal communication, January 28, 2003.
[232] Dennis Mathisen, Fire Marshal, Roseville Fire Department, personal communication, January 28, 2003

As discussed briefly above, project developers would be required to pay the Fire Service Construction Tax, which requires that 0.5 percent of the value of any new construction be collected as part of the building fee and designated for fire capital improvements, such as fire stations and safety equipment. If approval of the WRSP occurs after the Fire Service Construction Tax expires and is not subsequently removed, additional funding would need to be secured to fund the capital improvements. These funds could come from developer fees or other user fees. Staff funding could come from developer fees, other user fees, General Funds, property tax or sales tax revenues, or from an agreement between the RFD and the WRSP developer, where a percentage of the funds necessary to increase staff to serve the WRSP would come from the developer. The City could also provide funds for personnel expansion.[233]

Open space, including the open space preserves in the WRSP, include large open grassland areas and oak woodlands that could be subject to fires. A 50-foot-wide open space buffer area would be maintained at the perimeter of all open space preserves for fuel modification and fire management among other uses. All fences at the perimeter of the open space preserves would be constructed of noncombustible materials, except that wood posts may be used in post and cable barriers adjacent to landscape corridors and street edges. The RFD would maintain a fire management plan that includes maintenance of firebreaks and periodic fuel reduction. Fuel reduction may include controlled burns subject to the management standards included in the 404 permit.

The above standards and measures would ensure that impacts associated with wild land fires would be minimal. Firebreaks would ensure that if fires are started, they would be located in a contained area and would not spread to adjacent lands. The lack of combustible fence materials would also minimize the risk of fire by reducing the amount of potential fire fuel. The RFD's fire management plan would ensure there is adequate access to the site and that there is adequate fire staff to serve the WRSP, in the event of a wild land fire.

The existing Station #5 on Pleasant Grove Boulevard would serve the WRSP until other stations are constructed. Once it is constructed, the Blue Oaks Station, Station #8, would also serve the WRSP. According to the RFD, in order to provide adequate fire protection services and response times to the WRSP, one new station would be needed within the WRSP. The location for the proposed station is based on modeling performed by the Fire Department to determine the optimal location to serve the area. The station would be located on 3.1 acres west of Hayden Parkway, north of the high school and east of the proposed regional sports park. The station would likely be equipped with one engine, a ladder

[233] Dennis Mathisen, Fire Marshal, Roseville Fire Department, personal communication, January 28, 2003.

truck, and a battalion chief's command vehicle.[234] Staffing of the station would require approximately 3 operations personnel plus fire prevention, inspection, training, and administrative staff, consistent with City of Roseville General Plan goals for provision of fire services.[235]

The fire station site is located in the Phase 1 portion of the WRSP Area. Construction of the fire station facility would occur when deemed necessary by the City. According to the Department's model, development within the WRSP Area could be adequately served by the proposed fire station on Hayden Parkway in the WRSP Area. The RFD would monitor the response times in the WRSP Area to ensure that the response time standard is met in the WRSP Area. Timing of construction and staffing of the new fire station would be consistent with Fire Department Standards of Response Coverage Study, as required by WRSP provisions.

Because the Hayden Parkway fire station would meet City standards for serving WRSP residents, the impact on fire protection would be considered **less than significant**.

Remainder Area

If the Remainder Area were developed at levels similar to those proposed in the WRSP, the effects would be that a total of 7,403 residential units would be constructed within the Remainder Area. These residences, as well as commercial, industrial and public uses, would require fire protection services. The southern portion of the Remainder Area would be served by existing Station #5 on Pleasant Grove Boulevard. The northern portion of the Remainder Area would also be served by the proposed fire station on Hayden Parkway. However, these stations may not be able to maintain adequate response times for the Remainder Area.[236] An additional station may be needed to serve the southern portion of the Remainder Area. In order for the RFD to estimate response times consistent with WRSP provisions, it would need to run the Department's model, as required by MM 4.10-3 and MM 4.10-5. The model requires a land use plan, which is not available at this time. At the time specific development is proposed, the model will be able to indicate the appropriate location of a fire station in the Remainder Area to ensure that the response time standard of four minutes is met for all uses in the Remainder Area.

Development in the Remainder Area may require additional funding for fire suppression and protection. The Fire Construction Tax, if renewed, could supplement the General Fund for capital improvements. Additional funding would be generated by development or other fees, or from an agreement between

[234] Dennis Mathisen, Fire Marshal, Roseville Fire Department, personal communication, July 3, 2002.
[235] Dennis Mathisen, Fire Marshal, Roseville Fire Department, personal communication, January 28, 2003.
[236] Dennis Mathisen, Fire Marshal, Roseville Fire Department Internal Memo to Kathy Pease, May 24, 2002.

RFD and the developers in the Remainder Area. These funds would help provide additional fire protection resources ensuring that the existing service standards would be met.

The intensity and layout of development within the Remainder Area has not yet been specified. There are no specific plan policies that relate to fire prevention and suppression. As a result, there is a possibility that wild land fires could occur within the Remainder Area. Without any fire prevention policies or suppression measures, wild land fires in the Remainder Area could add to an increased demand for fire protection that would substantially interfere with the ability of the fire department to provide adequate response time to the SOI Amendment Area or surrounding areas.

The Fire Service Construction Tax, and MM 4.10-3, MM 4.10-4, MM 4.10-5, and MM 4.10-6 would ensure that fire stations are sited to maintain a City's response time standard and that fire prevention and suppression policies be adopted in the Remainder Area, reducing the impact to a **less-than-significant** level. If future fire stations were to be constructed or physically altered, construction and/or alteration activities could have potentially significant environmental impacts that would need to be addressed on a project-specific basis prior to approval and construction or alteration.

SCHOOLS

4.10.8 Environmental Setting

The SOI Amendment Area falls within the boundaries of the Roseville Joint Union High School District (RJUHSD), the Roseville City School District (RCSD), and the Center Joint Unified School District (CJUSD). The boundaries of these schools districts are illustrated by Figure 4.10-2 (School Districts Boundaries).[237] These districts and the existing and planned school facilities that would serve the SOI Amendment Area are described below.

Roseville Joint Union High School District

The RJUHSD serves 9th through 12th grades and receives students from three main elementary school districts, including RCSD, the Dry Creek Joint Elementary School District (DCJESD), and the Eureka School District. The RJUHSD boundaries overlap numerous jurisdictions, including the City of Roseville, Placer County, and Sacramento County. The District boundaries include Folsom Lake on the east, the Sutter County line on the west, Sunset Boulevard in Placer County on the north, and Antelope Road in Sacramento County on the south.

[237] City of Roseville, Draft West Roseville Specific Plan, April 2002, page 6-12.

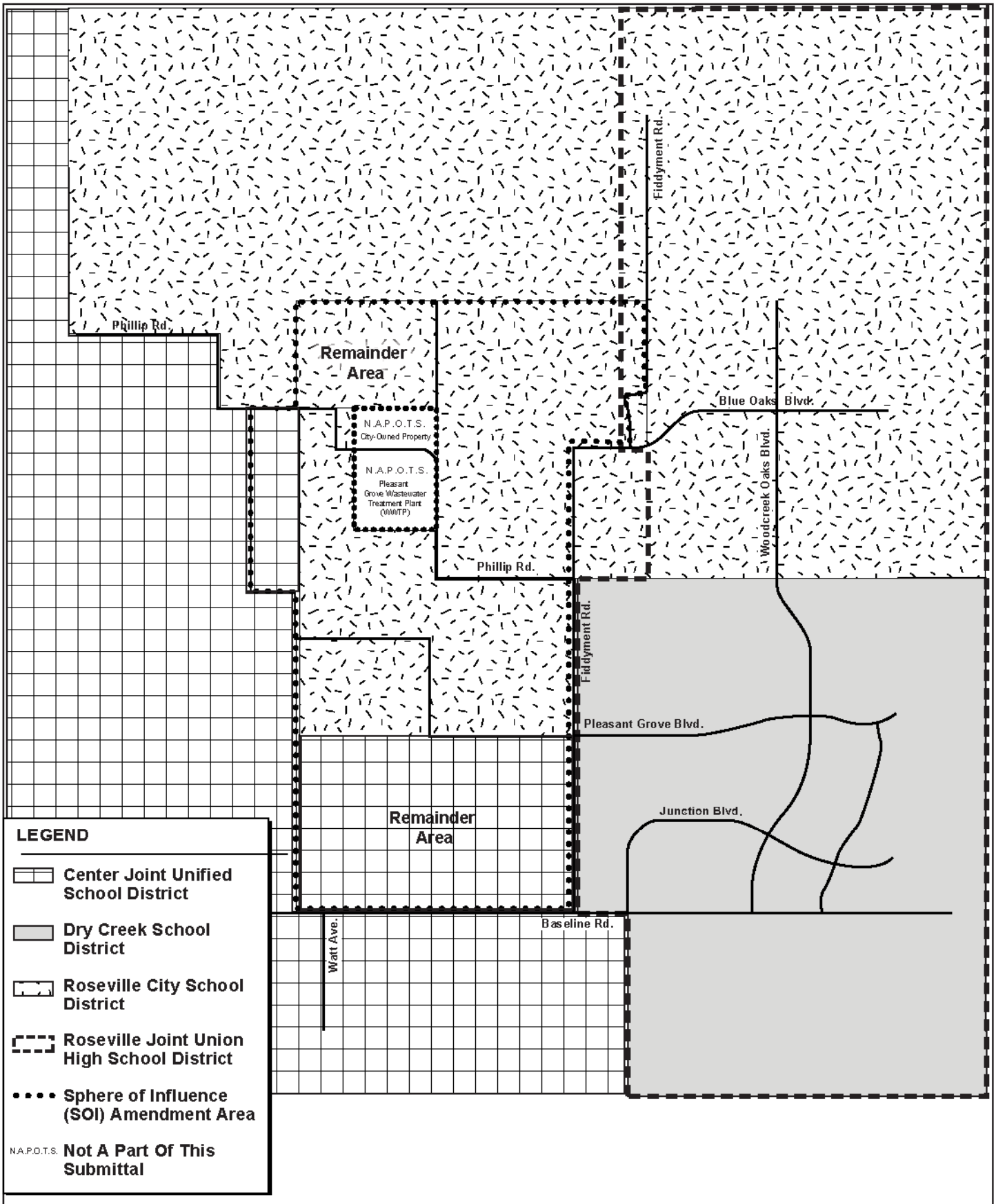


FIGURE **4.10-2**

School District Boundaries

Not to Scale

10659-00

Source: EIP Associates, 2003

City of Roseville

The RJUHSD currently operates a total of eight high schools: Adelante High School, Granite Bay High School, Independence High School, Oakmont High School, Roseville High School, Success High School, Woodcreek High School, and Roseville Adult School. Current 2002 enrollment in the RJUHSD is approximately 7,506 students, excluding the Roseville Adult School, Adelante and Success High Schools (see Table 4.10-1).[238] The District's capacity is 6,400 students, excluding the Roseville Adult School, Adelante, Independence and Success schools. Oakmont High School is the only school that is not yet at capacity.[239]

Table 4.10-1 Roseville Joint Union High School District School Capacities And Enrollment

School	Maximum Capacity	Current Enrollment	Percent of Capacity
Adelante High School	N/A	200	N/A
Granite Bay High School	1,600	2,041	128%
Independence High School	N/A	345	N/A
Oakmont High School	1,600	1,400	88%
Roseville High School	1,600	1,740	109%
Success High School	N/A	20-25	N/A
Woodcreek High School	1,600	1,980	124%
Roseville Adult School	N/A	N/A	N/A

SOURCE: Roseville Joint Union High School District, 2003.

The RJUHSD Board of Trustees adopted the District Facilities Master Plan on January 13, 1998. Over a 10-year horizon, the plan calls for construction of three comprehensive high schools, two continuation high schools, and one alternative high school.[240] Since adoption of the plan, Woodcreek High School has been completed and Granite Bay High School is open.[241] Site selection for a fifth comprehensive high school is in progress.[242] It is anticipated that this school would be located in the Antelope area. A ballot initiative on the November 2002 election, which would have provided funding for a high school in the Antelope area, did not pass.[243] Currently, a large portion of students residing in Antelope attend school at RJUHSD facilities.

[238] Cheri Fedder, Roseville Joint Union High School District, personal communication, August 22, 2002.
[239] Cheri Fedder, Roseville Joint Union High School District, personal communication, August 22, 2002.
[240] City of Roseville, North Roseville Specific Plan Draft EIR, page 4.12-22.
[241] Roseville Joint Union High School District, Facilities Master Plan, January 13, 1998.
[242] Roseville Joint Union High School District, Facilities Master Plan, January 13, 1998.
[243] Roseville Joint Union High School District website, Measure K Bond Information, http://www.rjuhsd.k12.ca.us/bondinfo/main1.html, accessed January 28, 2003.

Roseville City School District

The RCSD provides both elementary and intermediate school facilities for portions of the City. Schools within the RCSD include Vencil Brown Elementary, George Cirby Elementary, Crestmont Elementary, William Kaseberg Elementary, George Sargeant Elementary, Sierra Gardens Elementary, Ferris Spanger Elementary, Bradford Woodbridge Fundamental School, Catheryn Gates Elementary, Stoneridge Elementary, Robert Cooley Middle School, George Buljan Intermediate, and Warren T. Eich Intermediate. According to the RCSD, the District's current capacity is 9,425[244] and its existing enrollment is 7,040 students.[245] The current enrollment and existing capacity of each school is shown in Table 4.10-2. To accommodate overcrowding in the schools and the new class reduction requirement for grades K-3, the school district uses portable classrooms as well as busing children to other schools in the district that have space available.

Table 4.10-2 Roseville City School District School Capacities and Enrollment[1]

School	Maximum Capacity	Current Enrollment1	Percent of Capacity
Vencil Brown Elementary	600	539	90%
George Cirby Elementary	800	492	62%
Crestmont Elementary	575	491	85%
William Kaseberg Elementary	675	429	64%
George Sargeant Elementary	600	505	84%
Sierra Gardens Elementary	625	518	83%
Ferris Spanger Elementary	625	431	69%
Bradford Woodbridge Fundamental School	625	274	44%
Catheryn Gates Elementary	600	444	74%
Diamond Creek Elementary	600	581	97%
Stoneridge Elementary	400	218	55%
Robert Cooley Middle School	999	801	80%
George Buljan Intermediate	891	775	87%
Warren T. Eich Intermediate	810	542	67%
Total	***9,425***	***7,040***	***75%***

NOTES:

1 Enrollment as of September 4, 2002.

SOURCE: Heidi Eller, Executive Assistant to the Superintendent, personal communication, September 11, 2002; Schelli Landreth, Administrative Assistant, written communication, September 13, 2002.

Center Unified School District

The CUSD provides elementary, intermediate, and high school facilities for portions of the City, including part of the project site. CUSD schools include Spinelli Elementary, Oak Hill Elementary, North Country Elementary, Dudley Elementary, Center Junior High, Center High, McClellan High, and

[244] Schelli Landreth, Roseville City School District, written communication, September 13, 2002.

Antelope View Charter School (see Table 4.10-3).[246] Wilson Rile, Jr. High, is a new middle school planned at the corner of PFE Road and Walerga. It is scheduled to open in 2005. Another middle school is planned west of Watt Avenue, but a site has not been identified and funding is not secured. When the second middle school is constructed and accepting students, the District plans to close Center Jr. High School and consolidate it into the adjacent Center High School to create a larger high school.

Table 4.10-3 Center Unified School District School Capacities and Enrollment, 2001-2002

School	Maximum Capacity	Current Enrollment	Percent of Capacity
Spinelli Elementary		597	
Oak Hill Elementary		792	
North Country Elementary		727	
Dudley Elementary		848	
K-6	2,014	2,964	147%
Center Junior High		950	
7-8	324	916	283%
Center High		1,541	
McClellan High		96	
Antelope View Charter School		N/A	
9-12	1,080	1,637	152%

NOTES:
The individual school maximum capacities could not be provided by the Center Unified School District or their consultant, so capacity is provided by grade level.
SOURCE: John Loehr, Director of Maintenance and Operations, Facilities, Technology, and Transportation, Center Unified School District, written communication, August 16, 2002.

4.10.9 Regulatory Setting

Federal

Other than access requirements, there are no specific federal regulations pertaining to school facilities.

State

Proposition 1A/Senate Bill 50

Proposition 1A/Senate Bill (SB) 50 (Chapter 407, Statutes of 1998) is a school construction measure that was approved by the voters on the November 3, 1998 ballot. It authorized the expenditure of State general obligation bonds totaling $9.2 billion through 2002, primarily for the modernization and rehabilitation of older school facilities and the construction of new school facilities related to new growth.

[245] Heidi Eller, Roseville City School District, personal communication, September 9, 2002.
[246] Center Unified School District website, http://www.centerusd.k12.ca.us/, accessed on May 27, 2002.

Of the $9.2 billion, $2.5 billion is targeted for higher education facilities and the remaining $6.7 billion is targeted for K-12 facilities, throughout the state.

Of the $6.7 billion for K-12 schools, $2.9 billion is for new construction, $2.1 billion is for modernization of older schools, $1.0 billion is for districts in hardship situations, and $700 million is for class size reduction. The new construction money is available through a 50/50 state/local match program. The modernization money is available through an 80/20 state/local match program. There are a number of other program reforms that are not summarized here.

Proposition 1A/SB 50 has resulted in full State preemption of school mitigation. Satisfaction of the statutory requirements by a developer is deemed to be "full and complete mitigation." The new law does identify certain circumstances under which the statutory fee can be exceeded. These include preparation and adoption of a "needs analysis," eligibility for State funding, and satisfaction of one of four requirements (prior to January 1, 2000) identified in the law including year-round enrollment, general obligation bond measure on the ballot over the last four years that received 50 percent plus one of the votes cast, 20 percent of the classes in portable classrooms, or specified outstanding debt. As of January 1, 2000, the district must satisfy two of the four requirements obliging the increased fee.

Assuming a district can meet the test for exceeding the statutory fee, the law establishes ultimate fee caps of 50 percent of costs where the State makes a 50 percent match, or 100 percent of costs where the State match is unavailable. All fees are levied at the time the building permit is issued. District certification of payment of the applicable fee is required before the City or County can issue the building permit.

Department of Education Standards

The California Department of Education has published the Guide to School Site Analysis and Development in order to establish a valid technique for determining acreage for new school development. Rather than assigning a strict student/acreage ratio, this guide provides flexible formulas that permit each district to tailor its answers as necessary to accommodate its individual conditions. The Department of Education then recommends that a site utilization study be prepared for the site, based on these formulas.

Local

City of Roseville

The City of Roseville General Plan includes goals and policies for schools. Please see Appendix C for a complete list of all applicable City goals and policies.

School Facilities Funding and Fees

To ensure adequate funding for new school facilities in order to accommodate substantial new development and population growth within the City, the Roseville City Council adopted Ordinance 2434 (School Facilities Mitigation Plan) in February 1991. This ordinance requires the payment of fees, participation in a Mello-Roos Community Facilities District, and school facility mitigation plans for new development proposed within overcrowded districts. The mitigation fees established in the ordinance may be greater than the state-mandated fees. These mitigation fees vary depending upon the school district. If the applicant chooses to submit a mitigation plan, the plan must explain how the project developer would participate in financing additional interim and permanent school facilities needed to serve the applicant's residential development project. The mitigation plan would be reviewed by the school district(s) in which the project is situated. The district(s) may approve, disapprove, or modify the mitigation plan based upon the funding and facilities needs identified in the construction schedule or plan by each district.

WRSP Measures

The WRSP will fully mitigate school impacts in accordance with the Development Agreements and funding agreements with the respective school districts.

4.10.10 Impacts and Mitigation Measures

Methods of Analysis

The demand for school services is based upon the additional number of students generated by development of residential uses assumed for the SOI Amendment. The student generation rates for the Roseville Joint Union High School District, the Roseville City School District, and the Center Unified School District are provided in Table 4.10-4.

To quantify the total number of students, the residential development identified in the WRSP and the Remainder Area is multiplied by the appropriate student generation rates. Because the age-restricted housing identified in the WRSP is not expected to generate any students, these housing units are not included in the student calculation.

Table 4.10-4 School Enrollment Projections

		Single-Family Generation Rate	Multi-Family Generation Rate	Students Generated	School Capacity	Schools Required
WRSP Area						
Roseville City School District						
	Units	4,842	2,878			
Grades K-5		0.365	0.073	1,977	600	3
Grades 6-8		0.158	0.028	846	1000	0.85
	Total			***2,823***		
Roseville Joint Union High School District						
	Units	4,842	2,878			
Grades 9-12		0.227	0.067	1,292	1,800	0.72
	Total			***1,292***		
Remainder Area						
Roseville City School District						
	Units	2,674	380			
Grades K-5		0.365	0.073	1,004	600	1.67
Grades 6-8		0.158	0.028	433	1000	0.43
	Total			***1,437***		
Roseville Joint Union High School District						
	Units	2,674	380			
Grades 9-12		0.23	0.07	632	1,800	0.35
	Total			***632***		
Center Unified School District						
	Units	2,622	1,727			
Grades K-6		0.371	0.538	1,902	600	3.17
Grades 7-8		0.102	0.154	533	1000	0.53
Grades 9-12		0.188	0.269	958	1,800	0.53
	Total			***3,393***		
SOI Amendment Area (WRSP and Remainder Area-Combined)						
Roseville City School District						
	Units	7,516	3,258			
Grades K-5		0.365	0.073	2,981	600	5
Grades 6-8		0.158	0.028	1,279	1000	1.3
	Total			***4,260***		
Roseville Joint Union High School District						
	Units	7,516	3,258			
Grades 9-12		0.227	0.067	1,924	1,800	1.07
	Total			***1,924***		
Center Unified School District						
	units	2,622	1,727			
Grades K-6		0.371	0.538	1,902	600	3.17
Grades 7-8		0.102	0.154	533	1000	0.533
Grades 9-12		0.188	0.269	958	1,800	0.53
	Total			***3,393***		

SOURCES: Barbara Herndon, Assistant Superintendent of Business Services, Roseville City School District, personal communication, January 10, 2003; Chris Grimes, Director of Facilities Development, Roseville Joint Union High School District, written communication, January 13, 2003; Mike Winters, Caldwell Flores Winters Inc., personal communication, September 11, 2002.

To estimate the number of schools required to serve the additional students, the following students threshold per school estimates are used:[247]

- High School: 1,800 students
- Intermediate School: 1,000 students
- Elementary School: 600 students

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area would:

- Create an increased demand for schools that would exceed existing school capacity or require the construction of new facilities or the physical attention of existing facilities, which could result in substantial adverse environmental impacts.

Impacts

IMPACT 4.10-3:	INCREASED DEMAND FOR SCHOOLS.	
Applicable Policies and Regulations:	Roseville Ordinance 2434 City of Roseville General Plan	
	WRSP	**Remainder Area**
Significance With Policies and Regulations:	Less Than Significant	Significant
Mitigation Measures:	None required	MM 4.10-7 (Designate school sites)
Significance After Mitigation:	Less Than Significant	Less Than Significant

The total number of students generated in the Project Area would be approximately 4,883 elementary, 1,812 intermediate, and 2,882 high school students. As a result, there would be a total need in the SOI Amendment Area for approximately eight elementary schools, two intermediate schools, and one to two high schools (see Table 4.10-4).

The WRSP developers will enter into agreements with the school districts to provide 53 acres to develop a high school and 54.4 acres to provide four elementary school sites and one intermediate school site within the Roseville City School District. Because no land use plans have been prepared for the Remainder Area, the number and location of schools is unknown. Some Remainder Area students could be served by the WESP schools. City of Roseville General Plan Policies FC-2 and FC-3 require adequate

[247] California Department of Education website, School Facilities Fingertip Facts, January 2000, http://www.cde.gov/facilities/field/facts2002.htm, accessed September 26, 2002.

school facilities be available and the financing for new schools be identified and secured before new residential development is approved.

West Roseville Specific Plan

Table 4.10-4 shows school enrollment projections using generation rates accepted by the City in its General Plan as well as by the school districts. Based on this analysis, the WRSP would generate demand for approximately three RCSD elementary schools, one RCSD intermediate school and one RJUHSD high school.

The WRSP designates 54.4 acres to provide four elementary school sites and one intermediate school site within the Roseville City School District. The construction and operation of these new school sites are expected to accommodate the anticipated kindergarten through eighth grade students generated by the WRSP within the Roseville City School District. One elementary school would be located in the northeast corner of the development, north of Hayden Parkway and west of Fiddyment Road. Another elementary school would be located along Hayden Parkway, north of Blue Oaks Boulevard. A third elementary school would be located in the southern portion of the development along Village Green Drive. The fourth elementary school would be located in the western portion of the development, near West Side Drive, as shown in Figure 2-3 (West Roseville Specific Plan Land Use Plan) in Chapter 2 (Project Description). The intermediate school would be located along Bob Doyle Drive, north of the Village Center.

A 53-acre high school is planned near the middle of the WRSP, and would be constructed and operated by RJUHSD (see Figure 2-3, Chapter 2, Project Description).

No schools are planned within the CUSD, because no residential units are proposed within the district boundaries, although a portion of the Westpark property is located in the CUSD. Open space uses are proposed within CUSD boundaries on the Westpark property.

The elementary and intermediate schools would be built by the developers in lieu of fees. Signature Properties and Westpark Associates would convey elementary and middle school sites to the school district and be compensated for the land and construction of the school(s) after the district obtains state funding and the schools have been constructed. The high school site would be sold to the school district. All of the schools would be located near parks to be used as joint-use facilities. Phasing of school construction is subject to an agreement between Signature Properties and Westpark Associates and the school district.

City of Roseville General Plan policies FC-2 and FC-3 require adequate school facilities be available and the financing for new schools be identified and secured before new residential development is approved. The WRSP project applicants would enter into agreements with the school districts. Each of the two school districts would use this analysis for their environmental review should they obtain any of the designated school sites within the WRSP. The provision of school sites, along with implementation of the General Plan policies, would reduce impacts on the schools to a **less-than-significant** level. If future school facilities were to be constructed or physically altered, construction and/or alteration activities could have potentially significant environmental impacts that would need to be addressed on a project-specific basis prior to approval and construction or alteration.

Remainder Area

If the Remainder Area were developed at levels similar to those proposed in the WRSP, the effects would be similar. The northern portion of the Remainder Area and part of the southern portion is within the RCSD and RJUHSD, while a portion of the southern Remainder Area is in the CUSD. Although land use designations have not been assigned in the Remainder Area, some assumptions have been made about the distribution of land uses, primarily in order to conduct the traffic analysis (see Section 4.3, Transportation and Circulation). Using those assumptions, Remainder Area residences would generate approximately 1,003 RCSD K-5 students, 1,902 CUSD elementary, 433 RCSD intermediate, 533 CUSD intermediate, and 632 RJUHSD high school, and 957 CUSD high school students (see Table 4.10-5). These students in the Remainder Area would require three CUSD elementary schools, two RCSD elementary schools, one CUSD intermediate school, less than one RCSD intermediate school, one CUSD high school, and less than one RJUHSD high school.

Table 4.10-5 Summary of Park Area Required

Total Population1 (including active adult)	Required Total Park Acreage(9 ac/1,000 residents)
WRSP	
20,810	187.29 acres
Remainder Area	
18,730	168.57 acres
SOI Amendment Area	
39,539	355.85 acres

NOTES:
1. Average population per dwelling unit = 2.53. Active adult units (710) = 1.8.
SOURCE: West Roseville Specific Plan, March 2003.

Because no land use plans have been prepared for the Remainder Area, the number and location of schools is unknown. Some Remainder Area students could be served by the WRSP schools. For example, the four RCSD elementary schools in the WRSP could serve 2,400 students; the WRSP would generate

only 1,977 elementary school students in the RCSD, leaving capacity for approximately 423 additional students. Other schools in the vicinity might have capacity as well. Nonetheless, the number of students in the Remainder Area would exceed planned capacity. This is a **significant** impact.

MM 4.10-7 would require that school sites be identified as needed in proposed specific plans. Development of the Remainder Area would also be required to pay school impact fees pursuant to City of Roseville General Plan policies FC-2 and FC-3, participation in a Mello-Roos Community Facilities District, and school facility mitigation plans for new development proposed within overcrowded districts in accordance with Roseville City Ordinance 2434 (School Facilities Mitigation Plan). The provision of school sites, along with implementation of the General Plan policies, would reduce impacts on the local school districts to a **less-than-significant** level. If future school facilities were to be constructed or physically altered, construction and/or alteration activities could have potentially significant environmental impacts that would need to be addressed on a project-specific basis prior to approval and construction or alteration.

IMPACT 4.10-4:	INSUFFICIENT SCHOOLS FOR CUSD STUDENTS IN PROXIMITY TO THE SOI AMENDMENT AREA.	
Applicable Policies and Regulations:	Roseville Ordinance 2434	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	No Impact	Significant
Mitigation Measures:	None Required	MM 4.10-8 (School transportation policies)
Significance after Mitigation:	No Impact	Less Than Significant

West Roseville Specific Plan

Development within the WRSP would not generate any students within the CUSD. Therefore, no new CUSD schools would be required, and there would be **no** impact.

Remainder Area

As discussed above, approximately 2,622 single-family and 1,727 multi-family homes are estimated to be developed within the CUSD. Students in the Remainder Area would require approximately three CUSD elementary schools, less than one CUSD intermediate school, and one CUSD high school. It is expected that students living within the Remainder Area, inside the CUSD boundaries, would attend the newly constructed schools in the Remainder Area. The exact locations of school sites in the Remainder Area, would be determined through the development of specific plans. Until new schools are built in the

Remainder Area, CUSD students would need to be bused to existing CUSD schools outside of the SOI Amendment Area. Students would attend Oak Hill Elementary, Wilson Riles Jr. High (to be completed in 2005), and Center High School.[248] This would be a significant impact. Implementation of MM 4.10-8 would ensure that a safe and reliable transportation mechanism to and from schools be established for CUSD students living within the Remainder Area. This is consistent with Ordinance 2434, requiring the provision of interim school facilities. The provision of adequate student transportation to CUSD schools would reduce the impact on CUSD schools and students to **less than significant.**

LIBRARIES

4.10.11 Environmental Setting

While most library systems are operated by County governments, the City of Roseville operates its own library system. According to the City of Roseville General Plan, the City views libraries as an essential public service and contributing factor to the community's quality of life.

The City of Roseville Main Library is located at 225 Taylor Street, approximately four miles from the project site. The Main Library is approximately 30,000 square feet, but according to the Library Director, is currently inadequate to serve its users.[249] The Main Library site is constrained for space and cannot accommodate expansion, and the nearby City parking garage is insufficient to serve the library.[250] In addition, the library is located in a floodplain and has experienced flood damage in the past.[251] The City has indicated the need for a new main library which would be larger and better able to accommodate growth, parking, and office space needs.[252] The City's General Plan standard for new library facilities is one new branch library (approximately 10,300 square feet) for every 15,000 to 20,000 population.[253]

The City of Roseville also operates a branch library at the Maidu Regional Park located in southeast Roseville. The Maidu Branch is located at 1530 Maidu Drive and is approximately 10,300 square feet. Built in 1990, the Maidu Branch Library serves the neighborhood around the park and draws customers from other areas as well. This branch helps the Roseville community meet its needs for educational and recreational materials and for information of all kinds by providing efficient basic neighborhood library services. A City branch library will be located near the project site within Mahany Park. The branch

[248] Mike Winters, Caldwell Flores Winters, Inc., personal communication, January 21, 2003.
[249] Sue Nickerson, Library Director, personal communication, June 3, 2002.
[250] Sue Nickerson, Library Director, personal communication, June 3, 2002.
[251] City of Roseville, North Roseville Specific Plan Draft EIR, page 4.12-21.
[252] Sue Nickerson, Library Director, personal communication, June 3, 2002.
[253] City of Roseville, Draft West Roseville Specific Plan, April 2002, page 6-13.

library at the Mahany Park site, located approximately one mile east of the WRSP on Pleasant Grove Boulevard, would be the closest library facility to the WRSP. The planned library facility would have a floor area of approximately 10,300 square feet each. An additional library component could be included in a community center within the WRSP, but is not currently proposed as part of the project at this time.

Together these libraries serve populations from the City of Roseville, as well as the surrounding counties of Placer, Sacramento, El Dorado, Nevada, Yuba, and Sutter.

4.10.12 Regulatory Setting

Federal and State

There are no specific federal or state regulations pertaining to the provision of libraries.

Local

City of Roseville

The City of Roseville General Plan includes goals and policies for libraries. Please see Appendix C for a complete list of all applicable City goals and policies.

WRSP Measures

The WRSP does not include plans to construct a new library facility. The proposed multi-purpose community center in the WRSP could be expanded to include a library component if the City determines a library is needed in the WRSP.

Placer County

Placer County currently collects a public facilities fee which helps to fund library facilities. This fee is not collected in the City of Roseville. The City of Roseville funds its own libraries.

4.10.13 Impacts and Mitigation Measures

Methods of Analysis

The demand for library services needed to serve the increased Roseville resident population resulting from development of the WRSP and Remainder Area is estimated based upon the City of Roseville's General Plan guidelines for libraries. The impact analysis includes the calculation of additional library building area to serve the anticipated demand. As stated previously, the City of Roseville General Plan

guideline for libraries includes one new library of approximately 10,300 square feet for every 15,000 to 20,000 residents.

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area could:

- Create an increased demand for the provision of library services that would exceed the current or planned level of library services so that new or expanded facilities would be required which could result in substantial adverse environmental impacts.

Impacts

IMPACT 4.10-5:	INCREASED DEMAND ON LIBRARY SERVICES.	
Applicable Policies and Regulations:	City of Roseville General Plan	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.10-9 (Provide library branches, as needed)	MM 4.10-10 (Library facilities policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

West Roseville Specific Plan

Development within the Project Area would add approximately 39,539 people to the City of Roseville, or enough residents to warrant two or more branches. Implementation of the WRSP would add approximately 20,810 people to the City of Roseville. As discussed previously, the City General Plan standard (General Plan Policy FB-4) for new library facilities is one new library branch for every 15,000 to 20,000 population. Project development within the WRSP would contribute to the General Fund that finances libraries. However, there are no provisions for ensuring that library branches are added as the City's population grows and expands geographically. Therefore, the increased demand for library services would be a significant impact.

MM 4.10-9 requires the WRSP will meet the standard or provide equivalent mitigation as needed, to meet the needs of WRSP residents according to General Plan standards. Compliance with MM 4.10-9 would reduce impacts on libraries to a **less-than-significant** level. Potentially significant adverse

environmental impacts associated with construction of new library facilities or the expansion of existing facilities would be addressed on a project-specific basis at the time of construction or alteration.

Remainder Area

Development within the Remainder Area would add approximately 18,722 residents to the City of Roseville. As discussed above, the City's General Plan standard for new library facilities is one new library branch for every 15,000 to 20,000 population. It is anticipated that Remainder Area development would contribute to the General Fund that finances libraries. Nonetheless, because there is no mechanism to ensure that additional library facilities are constructed, this is considered a significant impact. Potentially significant adverse environmental impacts associated with construction of new library facilities or the expansion of existing facilities would be addressed on a project-specific basis at the time of construction or alteration.

MM 4.10-10 would ensure that facilities are adequate to serve residents in the Remainder Area by requiring that library branches be built and/or expanded consistent with the General Plan or provide an equivalent mitigation. This mitigation would reduce any impacts on libraries to a **less-than-significant** level.

PARKS AND RECREATION

4.10.14 Environmental Setting

The SOI Amendment Area is located within the Sacramento metropolitan region. This location has relatively easy access to the Sierra Nevada mountain range, the Central Valley, and the Pacific coast. Locally, recreational opportunities are commonly associated with parkway and river corridors, lakes and reservoirs, and community programs and facilities. The following discussion focuses on the existing parks and recreational facilities provided by the City of Roseville.

Park Types

The City has defined parklands to include developed parks, recreational open space, and joint-use park-school facilities. Parklands are further divided to distinguish between traditional ("active") and nontraditional ("open space or passive") parks.

There are currently 43 active park sites in the City, and 20 active parks are planned in the City for development in the future.[254] There are currently 1700 acres of passive parkland in the City, and 561 acres of recreational areas in joint use with schools.[255] Parks, public golf courses, and open space areas within the City are managed and maintained by the City's Parks and Recreation Department.

Traditional Parks

Traditional parklands typically provide a variety of active facilities, such as ball fields, multi-use turf areas, hard court areas, and picnic areas. This sort of parkland is classified by the Park Visions 2010 Comprehensive Parks and Recreation Master Plan into a hierarchy of park types: Mini, Neighborhood, Neighborhood/Community, Community, Citywide (Regional), and School Recreation Areas.

Park facilities near the project site include School House Park, located just west of the WRSP Area in the Del Webb Specific Plan area, an eight-acre neighborhood passive park, which has picnic tables, walking paths, and a group gathering area.[256] Veterans Memorial Park, also located in the Del Webb Specific Plan area, is a 10-acre park which has a softball field, picnic and play areas, horseshoe pits, a basketball court, natural area with interpretive trail, and landscaping, and a parking lot.[257] Mahany Park, located at 1545 Pleasant Grove Boulevard on the corner of Woodcreek Oaks Boulevard and Pleasant Grove is a 200-acre park featuring the Roseville Aquatics Center, the Roseville Sports Center, a lighted Softball Complex, and lighted Youth Baseball Complex. The park also contains a large lighted all-weather soccer field, a large picnic area with shelter, six tennis courts, and a bike trail. Permanent restrooms are available.[258] Maidu Regional Park is located in the eastern portion of the City. This 152-acre park features a large sheltered picnic area, a four-diamond lighted softball complex, a pedestrian and bike path, a large turf areas, two play equipment areas, permanent restrooms, and an historical area.[259] This is also the home of Maidu Community Center and Library and Maidu Interpretive Center.

Nontraditional Parks and Other Recreation Facilities

The City also provides nontraditional, park/open space areas such as vernal pool preserves, oak woodlands, watershed/riparian areas, and greenbelts. These areas are typically used for passive recreation and for visual and aesthetic enjoyment. Open space preserves commonly include pathways for walking, jogging, or bike riding.

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[254] Paula Finley, Park Development Manager, Roseville Parks and Recreation Department, personal communication, September 5, 2003.
[255] Paula Finley, Park Development Manager, Roseville Parks and Recreation Department, personal communication, June 4, 2002.
[256] City of Roseville Parks and Recreation Department website, http://www.roseville.ca.us/parks/facilities.htm, accessed July 2, 2002.
[257] City of Roseville Parks and Recreation Department website, http://www.roseville.ca.us/parks/facilities.htm, accessed July 2, 2002.
[258] City of Roseville Parks and Recreation Department website, http://www.roseville.ca.us/parks/parks.htm, accessed December 11, 2002.
[259] City of Roseville Parks and Recreation Department website, http://www.roseville.ca.us/parks/facilities.htm, accessed July 2, 2002.

There are four golf courses within the City. The City operates Diamond Oaks Golf Course, in the north central portion of the City and Woodcreek Oaks Golf Club, opened in August 1995, located in the Northwest Roseville Specific Plan Area. The 18-hole golf course, located in the Del Webb Plan area, is available for public use on a time-available basis. Sierra View Country Club, located at 105 Alta Sierra Avenue, is the fourth course, which is private.

The City also operates three swimming pools – Johnson Pool, Oakmont Pool, and the Roseville Aquatics Complex.

The Parks and Recreation Department also manages pedestrian and bicyclist pathways throughout the City (e.g., along Miners Ravine, Dry Creek, and Linda Creek). The paths are part of a larger planned pathway system which is intended to provide east/west connections within the City, integrate the City with future regional paths, and improve accessibility to the City's creek system.

Placer County

Areas that are outside of the City limits are provided park services by Placer County. Demand on City recreation services and park facilities corresponds with outlying area population density that is largely due to development. Those areas that are more developed and have higher densities create more demand on City services and facilities. Based on limited available data, approximately 30 to 40 percent of City recreation services and park facilities are used by County residents.[260] The Placer County General Plan identifies several open space and roadway corridors that are integrated with City facilities.

Placer County has identified (through policies or master plans) some park sites near the WRSP Area. The Dry Creek-West Placer Community Plan identifies a proposed park site approximately one-half mile south of the Baseline Road and Fiddyment Road intersection. Additionally, several open space or roadway corridors have been identified that reflect the important connections of nontraditional parkland and pedestrian/bicycle trail corridors between the Plan Area and Placer County. These connections include a bicycle lane/equestrian hiking trail along Fiddyment Road, and a planned regional trail corridor along Pleasant Grove Creek, which would connect the American River Recreational Area at Beale's Point on Folsom Lake with the Sacramento River in Sutter County.

[260] City of Roseville, North Roseville Specific Plan Draft EIR, page 4.12-28.

4.10.15 Regulatory Setting

Federal

There are no specific federal regulations pertaining to the provision of local parks and recreation facilities.

State

Quimby Act

California Government Code Section 66477, often referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees for park and recreation purposes. The City's requirement of nine acres per 1,000 residents exceeds the Quimby Act requirements, because as a charter City, Roseville set its own park dedication requirements.

Local

City of Roseville

Visions 2010, Comprehensive Parks and Recreation Master Plan

The City of Roseville Parks and Recreation Department adopted the Visions 2010, Comprehensive Parks and Recreation Master Plan in 1995. The Master Plan includes baseline data, policies, and recommendations for the day-to-day tasks of the Department, as well as standards for planning future park and recreation facilities.

WRSP Measures

The WRSP provides 955 acres in parks and open spaces. This includes 251 acres of neighborhood and Citywide parkland, 14.5 acres of paseos, 19.4 acres of pocket parks and 670.1 acres of open space.

City of Roseville General Plan

The City of Roseville General Plan establishes a park acreage standard of nine acres per 1,000 residents. Parks are classified as either "traditional" (active) or "nontraditional" (open space or passive). The City of Roseville General Plan includes other goals and policies for parks and recreation. Please see Appendix C for a complete list of all applicable City goals and policies.

Park Credits for Development

The City has an adopted park-to-population standard of nine acres per 1,000 residents. This standard is based on population estimates and demographic characteristics, and was derived from evaluating existing inventory and land needed for future expansion of recreation facilities. Typically, developers include park land in their development plans to meet the City Standard. The nine acres per 1,000 standard is further defined as follows:

- 3 acres Neighborhood/Community Park
- 3 acres Citywide Park
- 3 acres Open Space/Passive

Currently, park acreage credit can be obtained for any property with public recreational value; however, properties with less active recreation value typically receive less credit. A traditional "active" park is normally granted a 1:1 park acreage credit, while nontraditional "passive" parks are granted partial park acreage credits ranging from 10:1 to 5:1.

Park Facility Funding

Parks and recreation facilities are funded through a variety of mechanisms which vary depending on the location of the facility. Roseville Municipal Code Chapter 4.36, which established the Residential Construction Tax, was rescinded in February 1996.

The Neighborhood and Community Park Fee is required by Roseville Municipal Code, Chapter 4.37, and varies in amount depending on the neighborhood (and corresponding population) in which the park is located. Like the City-Wide Park Fee (discussed below), this fee increases annually (each July 1st) based on the inflation rate for construction costs from the previous year. It is collected from all new residential units and a park fee credit may apply. Based on neighborhoods, this fee is intended to provide sufficient funds to develop neighborhood and community parks within a specific plan area.

The City-Wide Park Fee was established in 1989 by the Roseville Municipal Code Chapter 4.38. This fee is collected from all new residential dwelling units within the City limits and is adjusted each July 1 based on the inflation rate for construction costs from the previous year. The City-Wide Park Fee is allocated for large-scale active recreation facilities intended to serve the entire City, typically located within identified Citywide parks.

Park Fee Credits have been allowed in the past pursuant to Roseville Municipal Code Chapter 4.38.06. Park fee credits have been granted to developers in specific plan areas in exchange for citywide park

property dedication that averages five acres or more per 1,000 residents. For neighborhood parks where improvements have been completed by developers on behalf of the City in advance of normal park development, the park fee credits vary by specific plan areas and are increased annually to account for inflation. However, park fee credits are not automatic and the WRSP Area's fees will be based on this plan's park program and credits may or may not apply.

4.10.16 Impacts and Mitigation Measures

Methods of Analysis

The amount and type of park acreage included in the SOI Amendment Area has been compared to the standards established in the Parks Visions 2010 Master Plan. The following factors have been applied to determine the park acreage required by the SOI Amendment.

- 3 acres Neighborhood/Community Park land per 1,000 residents
- 3 acres Citywide Park/land per 1,000 residents
- 3 acres Open Space/Passive land per 1,000 residents

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area would:

- Fail to meet the City's standards for the provision of parkland.

Impacts

IMPACT 4.10-6:	INCREASED DEMAND FOR PARK FACILITIES.	
Applicable Policies and Regulations:	City of Roseville General Plan Roseville Municipal Code Chapters 4.36, 4.37 and 4.38	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

West Roseville Specific Plan

The WRSP would result in a population increase of approximately 20,810 residents. Based on the City's parkland ratio, the WRSP would need approximately 187 credible acres for new parks total, with 62 acres each of Neighborhood/Community Park; Citywide Park; and Open Space/Passive parks (see Table 4.10-5). The WRSP proposes to rededicate a total of 320 credible acres per City required parkland. This includes approximately 83.5 acres of Neighborhood/Community parks, 166.6 acres of Citywide parks, 14.5 acres of open space paseo, and 684.6 acres of passive open space, for a total of 949.2 acres (see Table 4.10-6). In addition, the plan will provide 19.9 acres of pocket parks in Fiddyment Ranch. The WRSP would provide several active and passive recreational amenities such as oak woodland open space areas including Fiddyment Park, a regional sports park, neighborhood parks with tot lots and turf, bike/pedestrian paths, and paseos. Six joint use park-school facilities would also be created. In addition, the WRSP includes seven pocket parks of approximately three acres in size. Since the WRSP provides more than 62 acres for each of the park categories, the WRSP would provide more park acreage than required by City policy.

Table 4.10-6 Summary of Park Area Provided

	Total WRSP	SOI Remainder Area	SOI Amendment Area
Open Space Acreage	670.1	364.6	1,034.7
Open Space Paseo Acreage	14.5	--	14.5
Active Park Acreage	251.0	195.7	446.7
Pocket Parks (no credit)	19.4	--	19.4
Total Park and Open Space Acreage	***955***	***560.3***	***1,515.3***

NOTES: Parkland is not provided in the Remainder Area. Average listed is the park land projected for the Remainder Area if annexed.
SOURCE: West Roseville Specific Plan, September 15, 2003.

Parks and recreation facilities in Roseville are funded through a variety of mechanisms. The Neighborhood and Community Park Fee and the City-Wide Park Fee would be collected from all residential units. The applicants of the WRSP would be required to dedicate the required parkland and to pay park development fees. For these reasons, adequate park facilities would be provided and this impact is considered to be **less than significant.**

Remainder Area

Because it is assumed that the Remainder Area would be developed primarily with residential uses of a density and type similar to the WRSP, parklands would need to be included in the development of the Remainder Area. The City policy of nine acres of parks per 1,000 people would also apply to the Remainder Area. The Remainder Area would add approximately 18,722 residents, requiring approximately 169 acres of parkland, with 56 acres each of Neighborhood/Community Park; Citywide

Park; and Open Space/Passive Parks. The applicants of the Remainder Area would be required to dedicate parkland and to pay park development fees. With the allocation of nine acres of parkland per 1,000 people and the payment of appropriate development fees to pay for construction of park facilities, the impact would be considered **less than significant**.

Mitigation Measures

MM 4.10-1(a): Increase Number of Police Officers in the Roseville Police Department (Impact 4.10-1—WRSP)

Police Department staffing to serve the WRSP shall be increased to meet General Plan standards. Based on the projected population increase of approximately 20,810 residents in the WRSP Area, additional officers would be required to serve the new population. The City would fund these positions through increased general revenues generated by new development and the City's General Fund.

MM 4.10-1(b): Expand the Roseville Police Department Headquarters (Impact 4.10-1—WRSP)

An expansion of the Police Headquarters or potentially a satellite facility in the WRSP would likely be needed at buildout of the WRSP to accommodate the additional Department staff required by MM 4.10-1(a). The current size of Police Headquarters is insufficient to accommodate a large increase in police staff. The City would fund the expansion through increased general revenues generated by new development through the Capital Facilities Fee collected at the Building Permit stage. Planning and environmental review would be required for the development of an additional station or the expansion of the existing station. Depending on its design, size, and location, the expansion of the existing station or the construction of new law enforcement facilities could lead to increased air emissions, noise, and traffic, as well as loss or degradation of biological habitat, cultural resources, water quality, or other potentially significant environmental impacts. Impacts would be addressed on a project-specific basis prior to approval of construction.

MM 4.10-1(c): Expand the Voice Radio Communication System and Data Radio Systems (Impact 4.10-1—WRSP)

The voice radio communication system and data radio system shall be expanded, including possibly an additional antenna tower, to provide adequate radio service to the WRSP Area. The City would fund the expansion through increased developer contributions generated by new development and the City's General Fund.

MM 4.10-2: Law Enforcement Policies (Impact 4.10-1—Remainder)

Specific Plans and/or other development proposals for the Remainder Area shall provide for Police Department staffing and facilities at levels consistent with General Plan standards that would extend law enforcement into the area to be developed at levels needed to provide adequate public safety, and at ratios consistent with the City as a whole. The City would fund these positions through increased general revenues generated by developer fee contributions and the City's General Fund. Planning and environmental review would be required for the development of an additional station or the expansion of existing stations. Depending on its design, size, and location, the expansion of existing stations or the construction of new law enforcement facilities could lead to increased air emissions, noise, and traffic, as well as loss or degradation of biological habitat, cultural resources and water quality, or other potentially significant environmental impacts. Impacts would be addressed on a project-specific basis prior to approval of construction.

MM 4.10-3: Construct New Stations as Needed (Impact 4.10-2—Remainder)

The Roseville Fire Department shall closely monitor the response times within any new development area and provide for new stations as needed. Timing the construction and staffing of the new fire stations shall be consistent with Fire Department Standards of Response Coverage Study. Potentially significant environmental impacts associated with construction of new fire stations will be addressed in a project-specific basis prior to approval of construction.

MM 4.10-4: Demonstrate Adequate Response Time or Provisions (Impact 4.10-2—Remainder)

Specific Plans and/or other development proposals for the Remainder Area shall strive to meet the RFD's response time standard.

MM 4.10-5: Identify Appropriate Fire Station Locations (Impact 4.10-2—Remainder)

Prior to any development or Specific Plan approval for the Remainder Area, the Roseville Fire Department shall determine whether response times within the Remainder Area could be met with existing stations and/or stations shown in the West Roseville Specific Plan.

MM 4.10-6: Adopt Fire Prevention and Suppression Policies (Impact 4.10-2—Remainder)

Specific Plans and/or other development proposals for the Remainder Area shall either include specific policies or condition development to include the following:

- A 30-foot-wide mowed or graded fire break maintained at the perimeter of all Open Space areas.

- All fences at the perimeter of Open Space Preserve Areas constructed of noncombustible materials, except that wood posts may be used in post-and-cable barriers adjacent to landscape corridors and street edges.
- The Roseville Fire Department shall maintain a fire management plan that includes the maintenance of fire breaks and periodic fuel reduction.

MM 4.10-7: Designate School Sites (Impact 4.10-3—Remainder)

Specific Plans and/or other development proposals for the Remainder Area shall designate school sites needed to serve that plan's student population, unless the appropriate school district confirms in writing that other existing and planned schools would have adequate capacity. Potentially significant environmental impacts associated with the construction of new school facilities or the physical alteration of existing school facilities would be addressed on a project-specific basis at the time of construction or alteration.

MM 4.10-8: School Transportation Policies (Impact 4.10-4—Remainder)

Specific Plans and/or other development proposals for the Remainder Area in the Center Unified School District should encourage an appropriate mechanism for transporting students to schools outside the SOI Amendment Area, in coordination with CUSD.

MM 4.10-9: Provide Library Branches, as Needed (Impact 4.10-5—WRSP)

Pursuant to General Plan policy FB-4, library branches or components shall be expanded and/or constructed to serve the additional 20,810 residents in the WRSP. At the time of building permits, the capital facilities fee would be collected, a portion of which could fund the expansion of existing or construction of new library facilities. Special attention shall be paid to the locations of existing and planned library facilities, and their proximity to existing and future residents. Potentially significant adverse environmental impacts associated with construction of new library facilities or the expansion of existing facilities would be addressed on a project-specific basis at the time of construction or alteration.

MM 4.10-10: Library Facilities Policies (Impact 4.10-5—Remainder)

Specific Plans and/or other development proposals for the Remainder Area shall provide for library branches and/or components to be expanded and/or constructed to serve the additional residents in the Remainder Area. Developers shall pay a fair share fee to the City for the expansion of existing facilities or construction of new library facilities. Special attention shall be paid to the locations of existing and planned library facilities, and their proximity to existing and future residents.

4.11 PUBLIC UTILITIES

4.11.1 Introduction

This section describes utilities that will be required by the proposed project: potable water supply, recycled water, wastewater collection and treatment, solid waste disposal, electricity and natural gas, and telephone and cable services.

The following issues regarding public utilities were raised in response to the NOP (refer to Appendix B):

- Availability of existing and planned surface water and groundwater supplies
- Use of groundwater and effects on water levels
- Energy efficiency and conservation measures, as well as alternative forms of energy
- Effects of increased solid waste on the capacity of the regional landfill and Materials Recovery Facility
- Increase in construction-related solid waste
- Increase in litter
- Disposal of sewage sludge resulting from increased demand for wastewater treatment
- Financial costs associated with the provision of utilities

These issues are addressed in this section, with two exceptions. Litter is not addressed beyond the extent to which it is part of the total stream of solid waste that would be collected and sent to the regional landfill. As stated in Section 131(b) of the CEQA Guidelines, economic effects of a project shall not be treated as a significant effect on the environment; therefore, financial costs are not addressed in this EIR. However, they are being developed as part of the WRSP Financing Plan to ensure that all required utilities will be provided to support the proposed development.

As discussed in the introduction to Chapter 4 of this EIR, Environmental Analysis, the WRSP described in the NOP is different from the WRSP proposed at this time. The changes to the WRSP would not substantially affect the analysis of public utilities because the number of residential units would remain at 8,430 units, and only minor changes were made to commercial and other uses.

WATER

The water supply analysis is based on data presented in several technical studies developed for the proposed project, including

- *Technical Memorandum 1—Evaluation of Water System Capacity Water Demands* (Montgomery Watson Harza [MWH], February 26, 2002)
- *Technical Memorandum Task 1—Unit Water Demand Factor Revision* (MWH, November 6, 2002)
- *Technical Memorandum 3 – Wastewater Evaluation of Urban Growth Areas* (MWH, December 4,2001)
- *Technical Memorandum 7—Water Supply Strategy* (MWH, April 10, 2003)
- *2002 Urban Water Management Plan* (City of Roseville)
- *Master Water Study for West Roseville Specific Plan Area* (Wood Rodgers, May 2003)
- *Recycled Water Study for West Roseville Specific Plan Area* (HydroScience Engineers, Inc., May 21, 2003)
- *Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan* (MWH, June 2003)

The Groundwater Impact Analysis is provided in Appendix M, Technical Memorandum Task 1 (November 6, 2002) and Technical Memorandum 7 are provided in Appendix R, and Technical Memorandum 1 (February 26, 2002) is provided in Appendix Z of this EIR. All other documents and technical references cited in the footnotes are available for review at the City of Roseville Permit Center, 311 Vernon Street, Roseville, California.

The impact analysis in this section examines water supply and demand in the context of development projected in the City's General Plan and its attendant water demand using General Plan buildout (without the proposed project) as the baseline to ensure that the analysis incorporates a worst case scenario of competing water demands.

4.11.2 Environmental Setting

Existing Supplies

The City of Roseville has three existing sources of water supply: surface water, recycled water for landscaping, and, in dry years or emergency situations only, groundwater. Supply characteristics for each of these three sources are described below. Additional information on recycled water is included in Subsection 4.11.3 (Recycled Water) immediately following this section. Detailed information regarding groundwater resources is presented in Section 4.12 (Hydrology, Water Quality and Ground Water).

Surface Water

Folsom Lake has been the primary source of water for the City of Roseville since 1971. Through the Folsom Lake intake, Roseville receives untreated surface water from the U.S. Bureau of Reclamation (USBR) and the Placer County Water Agency (PCWA). The untreated surface water is delivered to the City's Barton Road Water Treatment Plant. Roseville maintains interties with PCWA, San Juan Water District (SJWD), the California American Water Company, and the Citrus Heights Water District. Interties are connections between existing distribution systems that can be used to deliver water between districts in the event of water treatment plant or conveyance system disruptions.[261]

As illustrated in Table 4.11-1, the City of Roseville has three surface water contract entitlements for diversions from the American River totaling 62,800 acre-feet per year (AF/year): a 32,000 AF/year contract with the USBR for a Central Valley Project (CVP) supply from Folsom Lake; a 10,000 AF/year contract with the PCWA with options for an additional 20,000 AF/year supplied from the Middle Fork [American River] Project (MFP); and an 800-AF/year contract with the SJWD for use of a portion of SJWD's PCWA contract water supply during normal/wet years (also provided from the MFP).[262]

Table 4.11-1 City of Roseville American River Water Contracts

Contracted Supply Water Supply Source	Contract Amount (AF/year)
U.S. Bureau of Reclamation (USBR)	32,000
Placer County Water Agency (PCWA)	30,000
San Juan Water District (SJWD)	800
Total Contracted Supplies	***62,800***
Available Supplies: Normal/Wet Years[1]	55,700
Available Supplies: Critically Dry Years[1]	39,800

NOTES:
1. Water Forum Agreement Maximum Surface Water Diversion limits the total amount available to the City, regardless of contracted amount.

SOURCE: City of Roseville 2003

The City of Roseville is a signatory to the Water Forum Agreement (WFA), which provides a framework for future surface water and groundwater supplies in the region through the year 2030. The WFA specifies maximum allowable surface water diversions based on unimpaired flows into Folsom Lake with diversions by the City restricted in normal/wet and in dry years, with the objective of supporting environmental needs in the Lower American River. Although water contract entitlements total 62,800 AF/year, under the WFA, the maximum American River surface water diversion by the City in normal/wet years is limited to 55,700 AF/year. The unused difference, which totals 7,100 AF/year, is

[261] City of Roseville, *2002 Urban Water Management Plan*, July 11, 2002, p. 17
[262] MWH, *Technical Memorandum, Task 7—Water Supply Strategy*, April 10, 2003, p. 3

released down the American River, where it ultimately flows into the Sacramento River. The City could divert this water from the Sacramento River through the proposed Sacramento River Water Reliability Project once this project is completed (refer to Impact 4.11-1 for additional information regarding the Sacramento River Water Reliability Project). However, in critically dry years, the maximum diversion from the American River is limited to 39,800 AF/year. In below average to dry years, the City may divert an amount between 55,700 and 39,800 AF/year from the American River based on unimpaired flow into Folsom Lake.[263] The Forum categorized water years into three types: 1) Normal or Wet Years, 2) Drier Years, and 3) Driest Years. These hydrologic year types are defined as follows:

- Normal or Wet Years: When the projected March through November Unimpaired Inflow to Folsom Reservoir is greater than 950,000 AF;
- Drier Years: When the projected March through November Unimpaired Inflow to Folsom Reservoir is between 950,000 AF and 400,000 AF; and,
- Driest Years: When the projected March through November Unimpaired Inflow to Folsom Reservoir is less than 400,000 AF.

In accord with the City's WFA, the City is working with PCWA on a re-operation plan of PCWAs Middle Fork Project (MFP) to allow up to 20,000 AF/yr of raw water to be released down the American River for environmental offsets resulting from increased water supply demands over 1995 baseline diversions (19,800 AF to 39,800 AF). The environmental offsets could come from two sources, either a combination of the remaining contractual supply (7,100 AF) plus re-operation of the MFP reservoirs (12,900 AF); or the full amount (20,000 AF) from re-operation of the MFP. Release of re-operation water would occur when the City is limited in its diversions from Folsom Lake during drier and driest years.

Recycled Water Supply

Recycled water refers to wastewater treatment plant effluent that has received a level of treatment that meets the State requirements for direct nonpotable re-use (for example, irrigation of landscaping).

Treated wastewater from the Dry Creek Wastewater Treatment Plant (DCWWTP), located on Dry Creek near the Union Pacific Railroad Yard in Roseville, produces recycled water for limited use for some landscape medians, some parks, and golf courses within the City limits. Refer to Subsection 4.11.3, immediately following this Water Supply discussion, for additional information regarding recycled water supply, including current delivery amounts and planned improvements.

[263] MWH, *Technical Memorandum, Task 7—Water Supply Strategy*, April 10, 2003, p. 3

Groundwater Supply

The use of groundwater is part of the City of Roseville's current water supply planning, but it is only used for short-term supply during dry years (e.g., during drought conditions in 1991). The City's WFA includes the extraction of up to 6,600 AF/year of groundwater during the drier and driest WFA hydrologic years. In addition, 800 AF/year would be required to support the loss of surface water no longer available from SJWD during dry years.[264] The City has four wells that are maintained primarily for backup water supply, and additional wells are planned to improve reliability. The City participates in a regional groundwater management plan with PCWA.[265] Refer to Section 4.12 (Hydrology, Water Quality and Ground Water) for additional information regarding groundwater resources and the PCWA groundwater management plan.

Future Water Supplies

Surface Water

The SJWD has an existing contract entitlement with PCWA to obtain up to 25,000 AF/year of water for use within Placer County and a long-term wheeling agreement[266] with USBR for accessing the water through Folsom Lake. Certain conditions of that contract allow a portion of that entitlement to be delivered to the SOI Amendment Area. Currently, SJWD is utilizing 48 percent of the contractual supply (12,000 AF/yr) and anticipates an additional 26 percent of the contractual supply (6,500 AF/yr) will be required to meet build out demands of the Granite Bay Area. This leaves 26 percent of the contractual supply (6,500 AF/yr). As established in a Memorandum of Understanding dated June 13, 2003, between SJWD and the City of Roseville, the SJWD has agreed to provide up to 3,200 AF/year of additional untreated surface water to the City from its existing entitlement.[267] The 3,200 AF/yr of water to be transferred to the City from SJWD represents 13 percent of the SJWD's PCWA water supply (25,000 AF/yr). Accounting for the existing 800 AF/yr of water already transferred from SJWD to the City and this new supply (3,200 AF/yr), SJWD would still have 10% or (2,500 AF/yr) of their PCWA contractual supply available. Further, the agreements between the City and SJWD require these water transfers comply with the District's commitments outlined in SJWD's Water Forum Agreement. This means that the 4,000 AF/yr transferred to the City is only available during wet years. During dry years, the City must utilize alternative water supplies. The 3,200 AF/yr of water is not included in the totals in Table 4.11-1

[264] MWH, *Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan*, Draft January 2003, p. 1-1

[265] City of Roseville, *2002 Urban Water Management Plan*, July 11, 2002, pp. 7–8

[266] "Wheeling" is the circumstance where one entity conveys or transfers water through another entity's facility. A wheeling rate is the charge imposed by the conveying agency for the transfer of the water. A wheeling agreement refers to the terms and conditions whereby the water is transferred.

because it is not part of the City's current contracted amount. Under the terms of the MOU, the 3,200 AF/yr would become available when the agreement between Roseville and SJWD is executed (upon completion of environmental review for the WRSP).

Recycled Water

The Pleasant Grove Wastewater Treatment Plant (PGWWTP), located on the west side of Phillip Road, south of the planned extension of Blue Oaks Boulevard (refer to Figure 2-3 [West Roseville Specific Plan Land Use Plan] in Chapter 2 [Project Description]), will produce recycled water in addition to recycled water produced by the DCWWTP. The PGWWTP is anticipated to be operational by winter 2003. This EIR uses the term "Roseville regional recycled water facilities" to refer to recycled water from the DCWWTP and the PGWWTP. Refer to Subsection 4.11.3, immediately following this section, for additional information regarding recycled water from the PGWWTP.

Aquifer Storage and Recovery (ASR) Program

The City is evaluating the feasibility of developing an Aquifer Storage and Recovery (ASR) program. Under such a program, surface water would be injected into the aquifer in wet years for storage, and then the City's backup groundwater wells would pump the stored water in dry years. The City is developing a demonstration project at the Diamond Creek well, which is under construction, to evaluate the feasibility of using planned wells for injection and storage of treated water.

Current and Projected Water Demand

The City's Urban Water Management Plan (WWMP) provides data, assumptions, and conclusions regarding water demand in the City of Roseville. The 2002 UWMP, which was prepared in accordance with California Water Code Division 6, Part 2.5, was adopted by City Council Resolution No. 02-315 on July 31, 2002, identifies current and projected water supply and demand in 5-year increments for a 20-year period ending in 2020 based on General Plan buildout. Because the SOI Amendment Area is outside the City limits, water demands for the WRSP Area and Remainder Area were not included in the 2002 UWMP. Subsequent to adoption of the 2002 UWMP, the City began to consider delivery of water service to urban growth areas outside the City limits, such as the SOI Amendment Area. As part of that effort, the City re-evaluated previous water demand factors to determine whether existing estimates of water demand reflect actual water use and the extent to which supply could meet citywide demand in addition to the demand associated with the SOI Amendment. The following discussion includes background

[267] MWH, *Technical Memorandum, Task 7—Water Supply Strategy*, April 10, 2003, p. 6

information about supply and reliability of existing supplies and summarizes the conclusions of studies performed in 2003 that resulted in adjustments to existing and future water demand estimates.

Supply and Reliability of Potable Water Supplies

The City of Roseville currently supplies surface water for municipal and industrial (M&I) uses. This requires firm surface water contract amounts to ensure that proper supplies are maintained for the residents and businesses relying on this supply of water. The estimates in the UWMP show that in average precipitation years the City of Roseville has sufficient water to meet its customers' needs through 2020 (without the proposed SOI Amendment). This is based on a continued commitment to regional planning for water supplies, ongoing conservation efforts, and additional recycled water supplies for landscaping being developed. In times of drought and water shortage, the urban demand is expected to decrease as a result of increased conservation awareness and regulations. Water available from surface water supplies would be supplemented with groundwater. It is expected that if supply were to be reduced due to shortage, consistent with reductions identified in the WFA, existing surface water supply coupled with conservation and groundwater use would be sufficient to meet citywide demands.[268]

The City's water system is completely "on-demand," as is typical of many urban water systems. During normal years, water supplies from Folsom Lake are sufficient to meet the contractual obligations, and the City has sufficient quantities, either directly from USBR or wheeled through Folsom Lake from PCWA, to meet the needs of the community. During times of drought, however, water allocations may be reduced, resulting in restrictions being imposed on all water used within the City.

The City's USBR contract requires supply cutbacks under certain conditions. Due to local water supply shortages, Roseville's water supply was reduced in 1991, 1992, 1994, and 2001. These cutbacks necessitated the use of an exercised water option with PCWA to reduce projected shortfalls.[269] During three of those four years, the PCWA water was conveyed through USBR facilities under single-year wheeling contracts. With the future reliance on PCWA water wheeled (or conveyed) through the USBR Folsom Lake facilities to meet the base demand within the City service area, a long-term contract that would provide for conveying PCWA water through USBR facilities ("wheeling contract") is being sought. The City is currently developing an environmental document to support approval and signature of the negotiated agreement.

[268] City of Roseville, *2002 Urban Water Management Plan*, July 11, 2002, p. 15
[269] City of Roseville, *2002 Urban Water Management Plan*, July 11, 2002, p. 15

Based on over 70 years of historical hydrology (and WFA restrictions), the 55,700 AF/year contract surface water supply is assumed to be available to the City in about 83 percent of the years. In about 17 percent of the years, less than 54,900 AF/year to a minimum of 39,800 AF/year of surface water would be available per the WFA. As discussed previously, the City is working with PCWA on a re-operation plan of PCWA's Middle Fork Project to allow up to 20,000 AF/yr of raw water to be released down the American River. Release of re-operation water would occur when the City is limited in its diversions from Folsom Lake during drier and driest years. Thus, in drought years, supplemental supplies potentially totaling up to 15,900 AF/year (the difference between the average/wet year supply and the dry year supply) is needed to make up for the dry-year and critically dry-year deficiencies. The City's current strategy for providing supplemental water during dry years consists of the following: 3,000 AF/year of recycled water supplies (for nonpotable, landscaping use), development of up to 6,600 AF/year of sustainable[270] groundwater supplies, 800 AF/year of groundwater to replace SJWD's PCWA contract water, and, during severe drought, the implementation of up to 5,500 AF/year of additional conservation efforts (including rationing), which represents a 10 percent reduction in water use.[271]

Water Shortage Contingency Plan

Based on current water supplies and projected supply availability, the City does not anticipate having more than a 20 percent shortage over a three-year consecutive dry-year period.[272] However, as part of the UWMP, the City has considered probabilities of shortages and outages that could affect water supply. This Water Shortage Contingency Plan notes that long-duration shortages are handled through implementation of a drought contingency plan, and short-term disruptions are addressed through use of existing system storage and interties with adjacent jurisdictions. In the event these supplies are not sufficient or available to meet short-term needs, groundwater can be used to supplement the required demand.

The City of Roseville has implemented various strategies and plans to minimize the use of potable water in order to operate effectively under drought conditions. In 1991, the City developed and adopted the Roseville Water Conservation and Drought Mitigation Plan. Under this plan, the City has authority to declare water shortage conditions and implement drought-related mitigation measures. The City can initiate this process by declaring the drought stage (Stage One through Stage Five) and imposing the appropriate and corresponding drought response measures. For example, Stage One prohibits washing

[270] A "sustainable" groundwater supply is defined as the amount of groundwater that can be extracted over the long term without depletion or overdraft of the aquifer.
[271] MWH, *Technical Memorandum, Task 7—Water Supply Strategy*, April 10, 2003, pp. 3–4
[272] City of Roseville, *2002 Urban Water Management Plan*, July 11, 2002, p. 16

of streets, driveways, sidewalks, and parking lots and places restrictions on boat and vehicle washing and serving water in restaurants. In the third consecutive dry year, or in the event of a major system failure, the City would continue a Stage One shortage response or move into a Stage Two water shortage response. Under Stage Two, the Stage One restrictions would apply, along with additional landscape irrigation restrictions. Stage Three, Four, and Five drought restrictions could be utilized in a similar manner depending on severity of the drought and anticipated shortage. Conservation measures to be taken in Stages One through Five are specified in the City Municipal Code Chapter 14.09, and cover supply shortages of up to 50%.

In summary, the City would initiate demand reduction measures as established, based on the drought stage, to meet the supply commitments made in the WFA.[273] City groundwater wells can also be activated to supplement surface water during droughts when necessary, but not in lieu of a Stage Two drought determination based on water supply availability.

Water Conservation

The Water and Energy Conservation Component of the City of Roseville General Plan encourages resource conservation and protection, and the City provides an information program to encourage conservation. Title 24 of the California Code of Regulations is the implementation tool for conservation efforts required by water system policies. The Code establishes water-conservation standards for new development, including low-flow showerheads and low-flush toilets. All non-residential and multi-family landscaping must also comply with Roseville Water Efficient Landscape Requirements. Water conservation requirements are specified in Chapter 14.09 of the Roseville Municipal Code.

As a USBR contractor, the City is required to develop and maintain a conservation plan pursuant to the Central Valley Project Improvement Act of 1992. In addition, as noted above, the City is a member and signatory to the WFA, which includes water conservation requirements. Water conservation measures are also required as part of the UWMP. The City of Roseville has developed a water conservation program in conjunction with the USBR and WFA participants that complies with requirements of the UWMP Act. This program includes 14 water Demand Management Measures (DMMs). These DMMs address audits, retrofits, leak detection and repair, metering/commodity rates, rebate programs, public information and education programs, commercial/industrial/institutional water conservation, and water waste prohibitions.[274]

[273] City of Roseville, *2002 Urban Water Management Plan*, July 11, 2002, p. 11
[274] City of Roseville, *2002 Urban Water Management Plan*, July 2002, pp. 19–28

Updated Potable Water Demand Estimates

Previous water supply planning in the City has been based on projected unit water demands, total water demand, and maximum day and peak hour demand factors provided in the *General Plan Update Water System Study* prepared by Spink in August 1993 (the "Spink study"). The City has been collecting and evaluating water meter data since 2001/02. The recent meter data indicate the unit water demand factors in the Spink study likely overestimate current and projected City water use. This is believed to be principally the result of the effect of the implementation of water conservation measures in post-1992 home construction. The data show a reduction in actual water use relative to the estimates used in the 1993 Spink study in every land use category except Business Professional, Railroad Yard, and Public. The data in the residential categories show up to a 25 percent decrease in every category except in one of the High-Density categories and one of the Low-Density categories. In the latter two categories, the decreases in the estimated unit water demand factors still exceed 10 percent. Significant decreases in the Industrial categories could be attributed to water conservation and greater weighting of economic considerations used in the design of industrial processes requiring water. The increase in the Business Professional category could be the result of more medical offices with a higher average water use than typical professional buildings.[275]

Revised unit water demand factors were developed through statistical analysis of the 1993 Spink study, meter data collected by the City of Roseville (as noted above), and unit demand data from Sacramento County water purveyors (which reflects Sacramento Area Water Forum land use/demand assumptions), Sacramento Water Agency Zone 40, PCWA Zone 1, and other Central Valley cities for each land use category group. The statistical comparison of unit water demand factors were then used to recalculate the unit water demand factors that were, in turn, used to estimate projected demands in the existing City of Roseville.[276] The adjusted estimates of existing and future water demand include a reliability factor to reflect the inherent uncertainty of such estimates, thereby insuring that the City can adequately meet delivery commitments and that service to existing and future customers would not be compromised as a result of the adjusted demand.[277] Refer to Technical Memorandum Task 1 included in Appendix R in this EIR for additional information regarding the development of revised unit water demand factors. Meter data will continue to be collected and analyzed to confirm the unit demand factors for the purposes of estimating existing and future water demands within the City and the SOI Amendment Area.[278]

[275] MWH, Technical Memorandum, Task 1—Unit Water Demand Factor Revision, November 6, 2002, p. 2
[276] MWH, Technical Memorandum, Task 1—Unit Water Demand Factor Revision, November 6, 2002, pp. 2–5
[277] MWH, Technical Memorandum, Task 1—Unit Water Demand Factor Revision, November 6, 2002, p. 1
[278] MWH, Technical Memorandum, Task 7—Water Supply Strategy, April 10, 2003, p. 6

Table 4.11-2 presents land use categories and total existing and buildout water demand for the City based on the revised unit water demand factors. The projected water demands include that portion of the City served with supplies contracted from the SJWD (i.e., Doctor's Ranch [NRSP Phase 3] and the Foothills Business Park). As illustrated in Table 4.11-2, the estimated existing citywide demand is 32,799 AF/year, and the estimated water demand (at buildout) of the General Plan is 51,621 AF/year. Neither existing nor future demand estimates includes the use of recycled water.

Table 4.11-2 City of Roseville Revised Unit Water Demand Factors and Existing and General Plan Buildout Water Demand (Without Project)

Land Use Category	Revised Demand Factor	Estimated Existing Demand in City (AF/year)	Estimated Demand at General Plan Buildout (without WRSP and SOI Amendment) (AF/year)
LDR (<3.5 DU/ac)	728 gpd/DU	4,943	5,903
LDR (3.5 to 5.0 DU/ac)	600 gpd/DU	8,222	13,524
LMDR (>5.0 to 6.0 DU/ac)	521 gpd/DU	2,880	3,301
LMDR (>6.0 to 8.0 DU/ac)	430 gpd/DU	1,594	2,030
MDR (>8.0 to 12.0 DU/ac)	323 gpd/DU	401	761
HDR (>12.0 to 16.0 DU/ac)	288 gpd/DU	32	115
HDR (>16.0 DU/ac)	177 gpd/DU	1,347	1,948
Commercial/Retail	2,598 gpd/ac	2,323	4,929
Business Professional	2,598 gpd/ac	987	2,267
Light Industrial	2,598 gpd/ac	858	4,120
Industrial	2,562 gpd/ac	1,599	3,002
Railroad Yard	109 gpd/ac	87	72
Elementary Schools	3,454 gpd/ac	648	573
High Schools	4,068 gpd/ac	408	597
Public (Fire Station, etc.)	1,780 gpd/ac	1,199	1,290
Park/Recreation	2,988 gpd /ac	4,628	6,176
Open Space/Major right-of-way	—	—	—
Vacant/Unassigned	—	—	—
	Subtotal	*32,156*	*50,608*
	System Losses (2%)	643	1,012
	Total	***32,799***	***51,620***

NOTES:
ac = acre AF/year = acre-feet per year LDR = low density residential LMDR = low medium density residential
DU = dwelling unit gpd = gallons per day MDR = medium density residential HDR = high-density residential
SOURCE: MWH, *Technical Memorandum, Task 7—Water Supply Strategy*, April 10, 2003, Table 1; *MWH, Technical Memorandum, Task 1—Unit Water Demand Factor Revision*, November 6, 2002, Table 6

As noted above, the new data indicate current estimates of existing and buildout citywide water demand are lower than the demand projected in the 1993 Spink study. Based on the revised unit demand factors the difference between existing and future surface average/wet year water supplies (55,700 AF/year) and the estimated water demand at General Plan buildout (51,620 AF/year) (not including the SOI Amendment area) is a surplus of 4,080 AF/year.

Using the revised unit demand factors, the City has decided that up to 4,080 AF/year of the excess City supply could be made available to the SOI Amendment Area, of which 2,316 AF/year would be made available to the WRSP. The City will need to update the UWMP to reflect adjusted demand projections that reflect the revised demand factors.

Recycled Water Demand

Existing City recycled water use (demand) is approximately 1,458 AF/year, which is supplied from the DCWWTP. The recycled supply from the DCWWTP is sufficient to meet demand through year 2005. Refer to Subsection 4.11.3, immediately following this Water Supply discussion, for additional information regarding recycled water.

Groundwater Demand

The City relies predominantly on surface water to meet potable water demand, as indicated above. Groundwater is extracted by the City for reliability in dry years or for short-term emergencies when other supplies are not available. Groundwater was last used during drought conditions in 1991.[279] Refer to Section 4.12 (Hydrology, Water Quality and Ground Water) for additional discussion of groundwater resources.

Existing Water Treatment and Distribution Infrastructure

Water Treatment

The City of Roseville operates a 60-million-gallons-per-day (mgd) water treatment plant (WTP) on Barton Road near Folsom Lake in the Granite Bay community. Untreated surface water from Folsom Lake is conveyed from a USBR intake through an 84-inch pipeline to a USBR pumping plant, which has a capacity of 96 mgd for Roseville contracted supplies.[280] After pumping, which is only necessary when lake levels drop below 404 feet, water is conveyed through an 84-inch pipeline to the "Hinkle Y" where flows to SJWD and Roseville are split. Roseville untreated water flows through a short segment of 60-inch pipeline, then into parallel 60-inch and 48-inch pipelines owned by the City of Roseville to the WTP.

The USBR pump station is designed to deliver 258 mgd at a lake surface level of 392 feet of which 96 mgd is allocated to Roseville. When the lake elevation is higher than 392 feet, the added head (or water

[279] City of Roseville, 2002 Urban Water Management Plan, July 11, 2002, pp. 7–8

[280] Wood Rodgers, Master Water Study for the West Roseville Specific Plan Area (Fiddyment Ranch/Westpark Properties), June 2003, Section 4.0

pressure) results in water flowing more efficiently and additional physical delivery capacity would be available. Constraints would then be limited to contractual agreements, if any.

Future average day treatment demand, based on the estimated citywide demand of 51,621 AF/year at buildout of the General Plan (without the proposed project) is projected to be approximately 46.09 mgd. The average daily treatment demand incorporates the revised unit water demand factors and does not assume the use of recycled water. The maximum daily demand, which reflects a peaking factor of 2.0, is estimated to be 92.18 mgd; however, the actual amount of treated water would be 88.93 mgd because recycled water used by existing customers (1,458 AF/year) would not require treatment at the Barton Road WTP or conveyance from Folsom Lake.

The existing Barton Road WTP capacity is 60 mgd and experienced peak demands of 49.5 mgd in July 2002. The treatment plant site has been master planned to an overall capacity of 100 mgd. The current plan is for plant expansions to be completed in two phases: an expansion to 75 mgd, which is expected to be completed in mid-2006, and an expansion to 100 mgd, which is expected to be completed in mid-2010.[281] An EIR was prepared for the WTP expansion to 100 mgd (the *Roseville Water Treatment Plant Expansion and 60-Inch Pipeline Project EIR* ["WTPE EIR"] [SCH #1998012011]). The WTPE EIR addressed implementation of a Water Plant Master Plan for the phased process to expand plant capacity of 60 mgd to 75 mgd, and, ultimately to 100 mgd to meet ultimate demand at General Plan buildout. The WTPE EIR included a project level evaluation for plant expansion from 48 to 60 mgd. It also included a program-level analysis for expansion up to 100 mgd. The program-level analysis, to the extent possible, addressed a series of actions leading to full implementation of the full master plan capacity, including the construction and expansion of treatment facilities, storage reservoirs, conveyance pipelines, and pump stations. The EIR was certified in 1999. A Supplement to the certified EIR was prepared to address the construction and operation of a 6 mgd clearwell reservoir and related facilities. The Supplement was certified in March 2003.

Storage and Distribution

Potable Water

On-Site Systems

The SOI Amendment Area is largely undeveloped, with the exception of the Fiddyment Ranch complex and the Corin residence in the Fiddyment Ranch portion of the WRSP and several residences in the

[281] City of Roseville, 2002 Urban Water Management Plan, July 2002, p. 13

Remainder Area. Other than groundwater wells that serve existing landowners, there is no developed potable water distribution system in the SOI Amendment Area.

The SOI Amendment Area is within the PCWA Zone No.5. This service zone was established by PCWA exclusively as an agricultural zone, and commitments of water by PCWA for agricultural use cannot be transferred to any other use. The conversion of land within Zone 5 from agricultural use to urban use requires that the land be detached from Zone 5 by the PCWA and attached to the City of Roseville service area.[282]

Off-Site Systems

Treated water storage is required citywide to manage flow fluctuations on a daily basis and to maintain sufficient storage to address emergency needs such as main breaks and fire fighting demands. The water distribution system currently includes 22 million gallons (mg) of storage and is projected to need a total of 48 mg of storage by 2020. The additional 26 mg of storage are planned for the northeast Roseville tank site (5 mg), Stoneridge Zone 2 (3 mg), the Barton Road WTP (6 mg), and North Industrial tank site (12 mg).[283]

Existing potable water distribution facilities are located east of the WRSP Area in the Del Webb and North Roseville Specific Plan developments. These lines, which range in diameter from 6 inches to 24 inches, are in existing roadway alignments, but do not extend west to Fiddyment Road at the WRSP Area boundary. Major water mains in the Del Webb development include a 24-inch main in Blue Oaks Boulevard, a 24-inch main in Del Webb Boulevard, and a 16-inch main in Pleasant Grove Boulevard. Major water lines in the North Roseville Specific Plan include a 24-inch main in Baseline Road.[284]

In general, the existing City potable water distribution system meets the City's maximum daily demand criterion of 6 feet per second (fps) for transmission main velocity (i.e., the rate at which water flows through the pipelines) and the City's water pressure criterion of 50 pounds per square inch (psi). There are a few locations where these criteria are not met, but the discrepancies are minimal and do not adversely affect water service to customers.

[282] Placer County Water Agency, "Placer County Water Agency Comments in Response to the NOP of an EIR for the Proposed West Roseville Specific Plan," letter from Einer L. Maisch, Director of Strategic Affairs, to Kathy Pease, Roseville Planning Department, August 29, 2002

[283] City of Roseville, 2002 Urban Water Management Plan, July 2002, pp. 13–14

[284] Wood Rodgers Inc., *Draft Water Master Study for West Roseville Specific Plan Area (Fiddyment Ranch/Westpark Properties)*, May 2003, Figure 2-1

Under General Plan buildout conditions (without the SOI Amendment), a few areas within the City are projected to approach or exceed the 6 fps velocity criterion: Cirby Way from Rocky Ridge Drive to Parkview Drive, Roseville Parkway from Harding Boulevard to Reserve Drive, and Pleasant Grove Boulevard at Foothills Boulevard. Water pressure decreases would affect Zone 1 services on Eureka Road and Douglas Boulevard along the boundary of Zone 2 and within the Creekside development area. At these locations, the system would be expected to experience a drop of approximately 3 to 5 psi during maximum daily conditions and approximately 5 to 9 psi during peak hour conditions. The City is continuing to evaluate options for identifying what, if any, improvements would be needed to address distribution system issues in these areas. Possible improvements could include installing parallel pipelines or in-line booster pumps.

Recycled water distribution systems are described in Subsection 4.11.3, immediately following this Water Supply discussion.

4.11.3 Regulatory Setting

Federal

There are no federal regulations related to water supply that pertain to the proposed project.

State

Water Supply Assessments

The California Water Code Section 10910 et seq. and Public Resources Code 21151.9 require that water availability be evaluated in a "Water Supply Assessment" prior to approval of certain large development projects and that detailed information regarding the assessment be included in the EIR for that project.

Water Supply Sufficiency Condition and Verification

California Government Code section 66473.7 (enacted by SB 221 and SB 610 in 2001) requires that a condition of approval be imposed on any tentative subdivision map for a residential subdivision of 500 or more units mandating that a "sufficient water supply" be available to serve the subdivision in addition to existing and planned future water uses. A public water system that proposes to serve the subdivision must submit to the relevant local government agency a water supply verification evaluating whether such a sufficient water supply exists, based on substantial evidence. Absent demonstration in the verification that a sufficient water supply exists, a final subdivision map cannot be issued for the project, and the subdivision cannot be built.

The Water Supply Assessment for the proposed project, indicating compliance with SB 221, is provided in Appendix S of this document.

State Drinking Water Quality Regulations

The State Department of Health Services establishes "primary" and "secondary" Domestic Water Quality Standards for drinking water supplied by public water systems such as the City. The standards are required by state law to meet or exceed standards adopted by the U.S. Environmental Protection Agency. The concentrations of specified constituents are limited to maximum contaminant levels (MCLs) and are established on a constituent basis for bacteriological contaminants (such as coliform), organic chemicals (such as benzene), inorganic chemicals (such as total dissolved solids), and radioactivity (such as gross alpha particle activity). Primary standards are set at levels necessary to protect public health and may not be exceeded. Secondary standards are based on aesthetic criteria such as taste and odor and are composed of (1) recommended limits that may be exceeded but are not recommended to be exceeded; (2) upper limits that may be exceeded for a limited duration with prior DHS approval; and (3) short term limits that may not be exceeded.

Public water systems also must obtain a domestic water supply permit from DHS that must be amended to reflect changes to the water supply system. The City has obtained such a permit.

Urban Water Management Planning Act (California Water Code, Division 6 Part 2.6, Section 10610 et seq.)

The Urban Water Management Planning Act was developed due to concerns for potential water supply shortages throughout the State of California. It requires information on water supply reliability and water use efficiency measures. Urban water suppliers are required, as part of the Act, to develop and implement Urban Water Management Plans to describe their efforts to promote efficient use and management of water resources.

Water Conservation Projects Act

The State of California's requirements for water conservation are codified in the Water Conservation Projects Act of 1985 (Water Code Sections 11950-11954), as reflected below:

> 11952. (a) It is the intent of the Legislature in enacting this chapter to encourage local agencies and private enterprise to implement potential water conservation and reclamation projects…

Other Applicable Regulations

In addition, other statutes that address water supplies include the California Environmental Quality Act (Public Resources Code Section 21151.9), the Cortese-Knox-Hertzberg Local Government Reorganization

Act of 2000 (Government Code Section 56668(k)), and Planning and Zoning Law (Government Code Section 6532.5).

Local

Water Forum Agreement

The Water Forum Agreement (WFA) is the result of the efforts of a diverse group of community leaders formed in 1994 to formulate principles for a regional solution to future water supply needs. Participants in the Water Forum have developed two coequal objectives:

- Provide a reliable and safe water supply for the region's economic health and planned development to the year 2030
- Preserve the fishery, wildlife, recreational, and aesthetic values of the Lower American River

Water Forum stakeholders have developed an integrated package of actions that will meet the two co-equal objectives mentioned above. Each element of the package is necessary for a regional solution to work. There are seven elements:

1. Increased Surface Water Diversions
2. Actions to Meet Customers' Needs While Reducing Diversion Impacts on the Lower American River in Drier Years
3. An Improved Pattern of Fishery Flow Releases from Folsom Reservoir
4. Lower American River Habitat Management Element, which also Addresses Recreation in the Lower American River
5. Water Conservation Element
6. Groundwater Management Element
7. Water Forum Successor Effort

Purveyor Specific Agreements (PSA) have been developed that describe in detail how each of the seven elements will be implemented by the respective purveyors, such as the City of Roseville, PCWA, and SJWD. These PSAs are compiled into a Memorandum of Understanding that each stakeholder's authorizing body has executed. In return for signing the final Water Forum agreement, water purveyors receive regional support for water supply projects, including site-specific infrastructure development.

In January 1999, the Sacramento City-County Office of Metropolitan Water Planning published the Draft Environmental Impact Report (EIR) for the WFA. The WFA EIR addresses the impacts and mitigation measures that the area stakeholders would need to comply with in order to implement the water supply

program outlined in the WFA. The Final EIR for the WFA was certified on November 23, 1999. The findings of that EIR, and the accompanying Water Forum Action Plan, outlined a program whereby water delivery could be supplied to area stakeholders through the year 2030, provided that a permanent pumping plant is constructed at Auburn and the Sacramento River Water Reliability Project diversion facilities are constructed. The WFA EIR is hereby incorporated by reference into this EIR. The full WFA EIR is available for review at the City of Roseville Permit Center, 311 Vernon Street, Roseville, California.

City of Roseville

General Plan

The City of Roseville General Plan includes several policies relating to water supply and distribution. Refer to Appendix C for a complete list of all applicable City goals and policies.

Urban Water Management Plan

The City has prepared and adopted an Urban Water Management Plan. The purpose of this plan has been previously described in this section. As indicated in that discussion, water demand associated with the SOI Amendment Area is not included in the plan, and the City will need to update the UWMP to reflect adjusted demand projections caused by the revised demand factors. A copy of the 2002 UWMP is available for review at the City of Roseville Environmental Utilities Department), 2005 Hilltop Circle, Roseville, California.

Water Master Plan

The City of Roseville has developed minimum operating goals for the planning of backbone potable water facilities. These criteria are used to ensure that subsequent distribution systems are not undersized when designed and constructed. Distribution systems must also be sized to provide adequate fire flows at minimum residual pressures that meet or exceed flows specified by the Insurance Services Office, Inc. (ISO) and Roseville Fire Department.

City Improvement Standards

Section 8 of the City's Improvement Standards (1993) provides engineering design criteria of the domestic water system that would serve the proposed SOI Amendment Area. The standards identify relevant regulations, professional standards (e.g., American Water Works Association), water supply

quality, operating pressures, required fire flows, transmission system design, and distribution system sizing and location.[285]

West Roseville Specific Plan

The water supply for the WRSP Area would consist of a combination of sources for wet and dry year scenarios. Nonpotable (recycled) water will be used for irrigation purposes in both wet and dry years. Potable water for the WRSP would be obtained from the City's existing contracts with PCWA and the USBR, as well as a new contract for 3,200 acre feet per year from the SJWD.

Water will be distributed within the WRSP Area via a looping system that parallels collector and arterial roadways on a transmission main grid. The transmission and distribution system consists of 12-inch to 24-inch diameter mains. Four groundwater supply wells are planned to ensure water supply service during shortages and in emergency situations.

Placer County Water Agency

The Placer County Water Agency (PCWA) was created in 1957 by a special Act of the State Legislature ("Placer County Water Agency Act"). This Act gives the PCWA Countywide authority with powers associated with water. The boundary of the PCWA encompasses over 1,400 square miles, all of which is located in Placer County. The PCWA is also designated as a local agency and an independent "special district" encompassing all of Placer County.[286] In addition to providing untreated surface water to the City of Roseville, the PCWA is also the lead agency for the West Placer Groundwater Management Plan, which is described in more detail in Section 4.12 (Hydrology, Water Quality and Ground Water).

4.11.4 Impacts and Mitigation Measures

Methods of Analysis

Water Supply Assumptions

Water Demand

Water demand for the proposed project was developed using the revised demand factors listed in Table 4.11-3 and applying those factors to the proposed land uses. The water demand data for the project were calculated by MWH and reviewed by City of Roseville staff in conjunction with the preparation of this EIR. Assumptions and conclusions of the water demand analysis are presented in Technical

[285] City of Roseville, Improvement Standards, 1993, pp. WA-1 to WA-7

Memorandum 1—Evaluation of Water System Capacity Water Demands (MWH, February 26, 2002) and in Technical Memorandum Task 1—Unit Water Demand Factor Revision (MWH, November 6, 2002). The availability of existing water supplies and water supply strategy to meet projected demands, in combination with existing and future City commitments, was analyzed by MWH and presented in Technical Memorandum 7—Water Supply Strategy (MWH, April 10, 2003), which serves as the basis for the project-specific water supply analysis presented in this section and the cumulative analysis in Chapter 5. Both technical memoranda are included in Appendix M in this EIR.

Table 4.11-3 Estimated Water Demand

Land Use Category	West Roseville Specific Plan (AF/year)	Remainder Area (AF/year)	SOI Amendment Area Total (AF/year)
LDR (<3.5 DU/ac)	1,523	—	1,523
LDR (3.5 to 5.0 DU/ac)	2,339	3,402	5,741
LMDR (>5.0 to 6.0 DU/ac)	228	—	228
LMDR (>6.0 to 8.0 DU/ac)	214	356	570
MDR (>8.0 to 12.0 DU/ac)	157	—	157
HDR (>12.0 to 16.0 DU/ac)	229	—	229
HDR (>16.0 DU/ac)	211	323	534
Commercial/Retail	95	207	302
Business Professional	57	146	203
Light Industrial	258	—	258
Industrial	98	—	98
Elementary Schools	211	267	478
High Schools	242	—	242
Public (Fire Station, etc.)	—	—	—
Park/Recreation	1,042	623	1,665
Open Space/Major right-of-way	—	—	—
Subtotal	6,904	5,324	12,228
System Losses (2%)	138	107	245
Total	***7,042***	***5,431***	***12,473***

SOURCE: Compiled from *MWH, Technical Memorandum, Task 7—Water Supply Strategy*, April 10, 2003, Table 1

Water Supply

City Environmental Utilities staff and MWH initiated a preliminary evaluation of potential water supply alternatives for the SOI Amendment Area in February 2002. The results of the evaluation were reported to the Roseville City Council. The preliminary evaluation identified a range of water supply alternatives that could provide the City with the ability to ensure long-term, reliable water supplies to the SOI Amendment Area while maintaining service to its existing and planned future customers within the current City limits. Based on the results, City Council directed staff to more fully develop and evaluate

[286] Placer County Water Agency, Draft West Groundwater Management Plan, June 23, 1998, p. 7

the most promising alternatives and to identify a recommended course of action. In November 2002, Environmental Utilities staff and MWH completed a water supply strategy identifying a portfolio of water supply sources that could meet the projected water demands of the SOI Amendment Area under any hydrologic conditions. The two Technical memoranda included in Appendix R in this EIR, which are summarized throughout this analysis, provide additional detail regarding the development of the proposed water supply strategy for the SOI Amendment Area.

The extent to which the identified sources of water can serve the SOI Amendment Area is evaluated in this Section. Sources that are already available or planned to be developed by the City and assumed in the analysis are: surplus water (4,080 AF/year) the City has determined can be made available to the WRSP and Remainder Area from existing supplies as a result of updated City buildout water demand estimates; 3,200 AF/year SJWD allocation of PCWA water under contract; and available recycled water for landscaping from the PGWWTP (2,638 AF/year), and during dry years, groundwater. The proposed Sacramento River Water Reliability Project is a possible source of water supply for the City, but is not considered assured, because it has not been designed, funded and is subject to later CEQA/NEPA review. Furthermore, because it would be a multi-jurisdictional project, funded by and providing water to a number of agencies, the City could not, by itself, ensure that the diversion would be built.

Impacts of Water Use

The environmental effects of using these sources of water are also evaluated in this EIR as indicated below.

Impacts of San Juan Water District (SJWD) Surface Water Contract Allocation

The 3,200 AF/year SJWD source of supply is a portion of an existing PCWA surface water supply of 25,000 AF/year that would be made available through an agreement between Roseville and SJWD. The 3,200 AF/yr of water to be used within the WRSP Area was analyzed under the 2030 scenarios evaluated in the Water Forum EIR (Water Forum Environmental Impact Report, dated July 20, 1999), as discussed in Section 5.5 (CEQA Considerations, Cumulative Impacts). The 25,000 AF/yr (which includes the 3,200 AF) of PCWA water contracted to SJWD was anticipated to be diverted in both the wet and dry year scenarios.

Recycled Water

Recycled water is proposed to serve landscaping needs along roadways and medians, commercial, office, industrial, parks, schools, and multi-family land uses within the SOI Amendment Area. The potential environmental effects of supplying recycled water to the WRSP and Remainder Area for landscape

irrigation are discussed in Subsection 4.11.3 (Recycled Water) following this Water Supply section. It should be noted that the total recycled water assumed for the SOI Amendment Area (2,638 AF/year) is less than that assumed in the recycled water analysis (2,839 AF/year). The 2,638 AF/year quantity was an estimate included in the water supply studies prepared by MWH and is considered worst-case from an available water supply perspective. The 2,839 AF/year quantity was an estimate included in the Hydro-Science Engineers Recycled Water Study for the WRSP and is considered worst-case from a recycled water treatment and conveyance capacity perspective.

Water Made Available Through Revised Unit Water Demand Factors (Surplus Water from Existing Supplies)

The only environmental effect of the reduced unit water demand factors and associated adjustments to buildout demand projections is that it could induce growth that would not otherwise have a source of water, such as the proposed project. The effects of making water available to the WRSP and Remainder Area are fully evaluated in this EIR.

Dry-Year Groundwater Supply Impact Analysis

Impact 4.12-6 in Section 4.12 (Hydrology, Water Quality and Ground Water) discusses the potential physical effects on groundwater resources that could result when groundwater is used in dry years to supplement water supplies for the WRSP. Assumptions used in the groundwater impact analysis were presented in the *Groundwater Impact Report* prepared by MWH and provided in Appendix M of this document. These assumptions are more fully explained in Section 4.12 (Hydrology, Water Quality and Ground Water).

Sacramento River Water Reliability Project

Up to 7,100 AF/year of surface water from the Sacramento River Water Reliability Project is required for development of the Remainder Area. Additional information about this project is provided in Impact 4.11-1. The potential environmental effects of the 7,100 AF/year were not considered within the cumulative context of American and Sacramento river diversions evaluated in the WFA EIR but would be done as part of further environmental review of that project. Refer to Chapter 5, CEQA Considerations—Cumulative Impacts, for a further discussion of the assumptions and conclusions related to this diversion.

Water Treatment

A Master Water Study for the proposed project was prepared by Wood-Rodgers, Inc. to identify and adequately size proposed water infrastructure, including water treatment, storage, and distribution. The

Master Water Study, which evaluated the hydraulics of potable water supply infrastructure, considered the proposed land uses for the WRSP as well as the Remainder Area. The *Master Water Study* incorporated water demand information generated by MWH for the WRSP and water treatment plant capacity information developed by City Environmental Utilities staff. Wood-Rodgers used the *Hydraulic Grade Available in the Raw Water Supply Pipeline* report prepared by Boyle Engineering in 1996, in combination with the anticipated flow characteristics for the 100-mgd Barton WTP, to estimate design velocities and to identify necessary pipeline modifications to accommodate increased flows from Folsom Lake that would be conveyed to the Barton Road WTP for treatment. Additional details about pipeline assumptions are presented in the Water Master Plan. The results of the treatment capacity evaluation have been incorporated into the impact discussion. The *Master Water Study* is available for review at the City Permit Center, 311 Vernon Street, Roseville, California.

Water Distribution and Storage

The analysis of potable water storage and distribution effects is based on a technical study prepared for the SOI Amendment Area (Master Water Study, May 2003, prepared by Wood-Rodgers), as discussed above. Peaking factors were used to simulate worst-case system-operating scenarios and to generate total potable water system demands for the WRSP and the Remainder Area. The Wood-Rodgers technical study used the City's current design criteria and standards included in the City's General Plan Update Water System Study for hydraulic modeling to determine pipe and water storage reservoir sizing, storage needs, and booster pumping facilities, and to determine impacts to the City's existing potable water distribution system. For purposes of the technical study, it was assumed that maximum day demands would be supplied via connections to existing off-site infrastructure east of Fiddyment Road and that capacity to wheel a PCWA flow of 10 mgd[287] to the intersection of Baseline Road and Fiddyment would be maintained. The City H20MAP model was used with estimated demand allocations to the perimeter of the SOI Amendment Area to represent the additional demands of the WRSP and Remainder Area. Resulting pressures and hydraulic grades were estimated from the water model.

Distribution systems must also be sized to provide adequate fire flows at minimum residential pressures that meet or exceed flows specified by the Insurance Services Officer (ISO) and Fire Department. Wood-Rodgers contacted the Roseville Fire Marshal to verify fire flow demand requirements. Fire flow demands assumed 4,000 gpm for commercial sites, 4,500 gpm for schools, and 2,000 gpm for single-

[287] An agreement between PCWA and the City of Roseville requires that the City provide capacity in the 24-inch City water line in Baseline Road to maintain 10 mgd flow. This water is for use in Placer County south of Baseline Road and is not for City use. (Wood-Rodgers Inc., *Draft Water Master Study for West Roseville Specific Plan Area (Fiddyment Ranch/Westpark Properties)*, May 2003, p. 31.)

family residential development maintained at a minimum-required 20 pounds per square inch (psi) residual system pressure at the flowing hydrant.

Refer to Subsection 4.11.3, immediately following this discussion for information on recycled water distribution system assumptions and analysis.

Remainder Area

Development of the Remainder Area is anticipated to generate a demand for water of 5,431 AF/year (refer to Table 4.11-3). As previously discussed and illustrated by Table 4.11-5, there would be a surplus of 1,764 AF/year from citywide and WRSP supply. This surplus would be made available to the Remainder Area. In addition, 1,112 AF/year of recycled water would be available to the Remainder Area, which includes that part of the 2,638 AF/year available to the entire SOI Amendment Area minus the 1,526 AF/year available to the WRSP Area, for landscape irrigation. However, the combined supply would not meet total water demand in the Remainder Area while meeting demand associated with the WRSP and buildout under the General Plan. As shown in Table 4.11-5, the deficit demand would be 2,555 AF/year. This is considered a significant impact.

Compliance with applicable State and local plans and policies associated with water supply would be required; however, these would not reduce impacts to a less-than-significant level.

Standards of Significance

For the purposes of this EIR, a significant impact would occur if the development proposed in the SOI Amendment Area would do either of the following:

- Require new or expanded water entitlements to serve the project
- Result in or require the construction or expansion of water treatment, conveyance, and/or storage facilities that would create significant environmental effects

The impact significance determination for water entitlements and resources (first standard listed above) considers relevant County and City planning policies and agreements. Specifically, the Development Standards in the Memorandum of Understanding (MOU) for the SOI Amendment Area (Exhibit C in the MOU) assume that surface water will be used to meet water demands of the project. The Guiding Principles for development west of Roseville state that the new demand would be met through surface water, recycled water, and other off-sets. An implicit assumption in both the MOU and Guiding Principles is that groundwater would not be used to meet demand on a regular basis. Nonetheless, the City does rely on groundwater in drier and driest years when surface supplies are not available, as

discussed in the Environmental Setting. Thus, groundwater could be used. However, the MOU requires that groundwater impacts of the project will be mitigated to a less-than-significant level unless both the County and City agree that mitigation is infeasible and overriding considerations supported by substantial evidence in the record make the unavoidable adverse environmental impacts acceptable. If a new or substantially more severe impact occurs with respect to groundwater, the City will determine whether additional environmental documentation is necessary as required for compliance with Section 15162 of the CEQA Guidelines. If additional environmental documentation is necessary, it will be completed prior to use of the groundwater.

Impacts

IMPACT 4.11-1:	AVAILABILITY OF WATER SUPPLIES TO MEET DEMAND IN WET YEARS.	
Applicable Policies and Regulations:	Water Supply Assessment (SB 221 and 610) Urban Water Management Planning Act Water Conservation Projects Act Water Forum Agreement City of Roseville and Placer County General Plan Policies Urban Water Management Plan Water Master Plan/Design Standards PCWA	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Significant
Mitigation Measures:	None Required	MM 4.11-1 (Secure adequate water supply)
Significance after Mitigation:	Less Than Significant	Significant and Unavoidable

Development of the SOI Amendment Area would include residential, commercial, business professional, light-industrial and industrial uses, and other land uses that would require water. Table 4.11-3 shows demand by land use type for the SOI Amendment Area. The total water demand for the SOI Amendment Area is estimated to be 12,473 AF/year. This amount includes the 7,042 AF/year needed for the WRSP and 5,431 AF/year for the Remainder Area.

West Roseville Specific Plan

Table 4.11-4 presents demand data for development of the WRSP Area in combination with demand associated with City buildout. Development of the WRSP Area would result in the demand for 7,042 AF of water annually (refer to Table 4.11-3). When combined with General Plan buildout demand, the total demand would be 58,662 AF/year.

Table 4.11-4 Water Demand and Supply: West Roseville Specific Plan, Average/Wet Years (Acre-Feet Per Year)

	Demand	Supply	Surplus (+) or Deficit (–)	Mitigation	Mitigation Amount	Surplus or Deficit
City of Roseville	51,620	55,700[1]	+4,080			
WRSP	7,042	4,726[2]	–2,316			
City plus WRSP	***58,662***	***60,426***	***+1,764***	None required	N/A	N/A

NOTES:

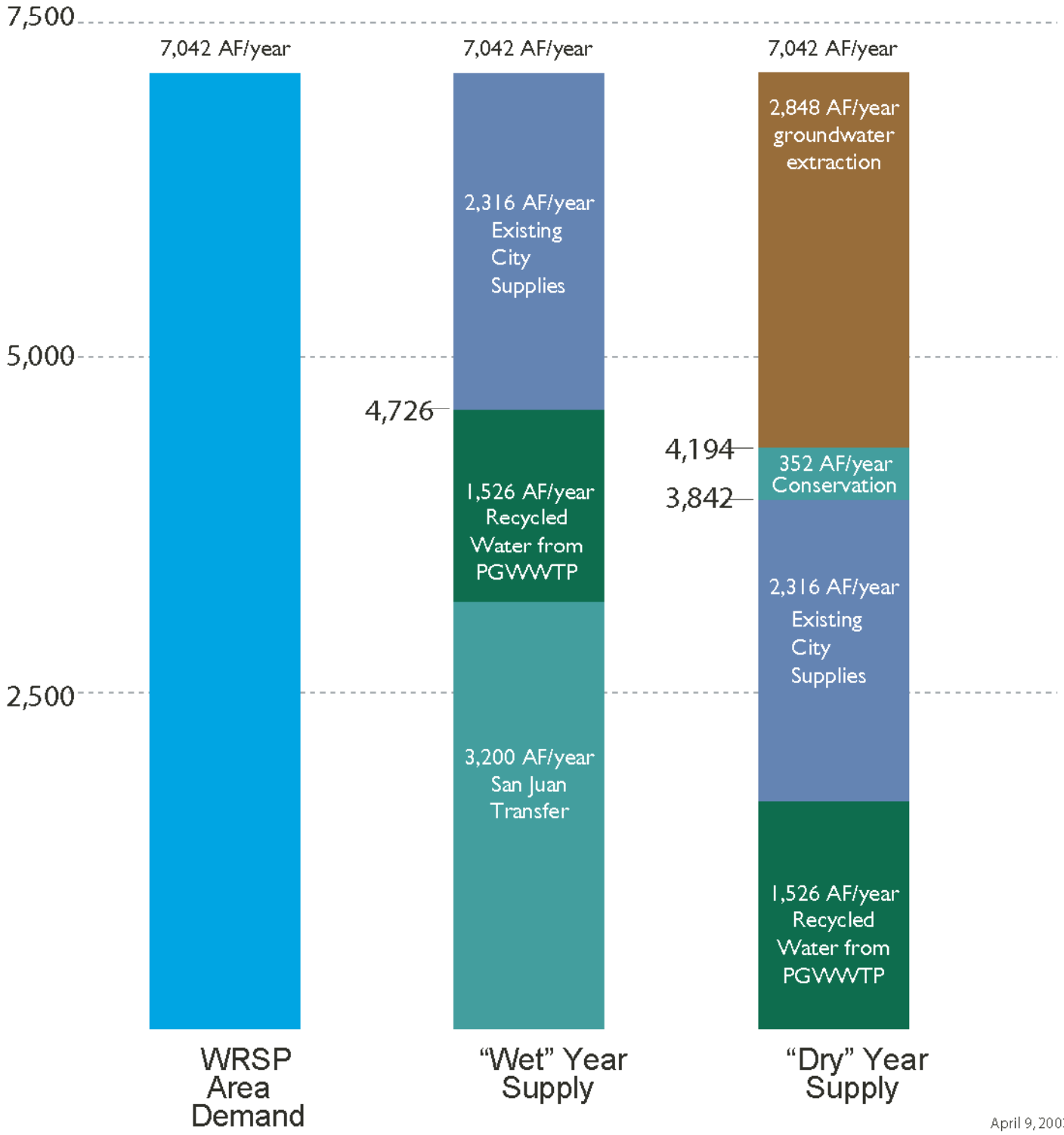
1. Water Forum Agreement (WFA) allocation for average wet years
2. Recycled water = 1,526 AF/year; San Juan Water District = 3,200 AF/year

As indicated in Table 4.11-4, two assured sources of water in average/wet years for the WRSP Area would be the SJWD supply (3,200 AF/year) and recycled water for landscape irrigation from PGWWTP (1,526 AF/year of the 2,638 AF/year available to the entire SOI Amendment Area). As previously discussed, the City has negotiated an MOU with SJWD for 3,200 AF/year during wet years. This SJWD allocation is consistent with the WFA, and would be funded by the project applicant. The WRSP includes infrastructure necessary to convey recycled water for landscape irrigation to the WRSP Area from regional facilities (refer to Impact 4.11-5 for more discussion of recycled water). Therefore, these two sources are available to the City under the WFA and can be feasibly obtained without affecting water supply for existing customers or buildout of the existing General Plan.

As previously discussed and as shown in Table 4.11-4, City supply under the WFA (55,700 AF/year) would exceed demand associated with buildout of the current General Plan by 4,080 AF/year. The City would make 2,316 AF/year of the Citywide surplus available to the WRSP Area. When combined with the City's WFA allocation, there would be a total supply of 60,426 AF/year resulting in a citywide surplus of 1,764 AF/year. Figure 4.11-1 (Proposed Water Supply Strategy for West Roseville Specific Plan) illustrates the sources of water that would be used for the WRSP. The water supply for the WRSP Area would consist of a combination of sources for wet and dry year scenarios. Nonpotable (recycled) water will be used for irrigation purposes in both wet and dry years. Potable water for the WRSP would be obtained from the City's existing contracts with PCWA and the USBR, as well as a new contract for 3,200 acre feet per year from the SJWD.

In addition, compliance with State regulations such as the requirement of a Water Supply Assessment that would ensure compliance with SB 221 and 610, the Urban Water Management Planning Act, and the Water Conservation Projects Act would address potential impacts to water supply and distribution. Further, local regulations, such as the Water Forum Agreement, City of Roseville and Placer County General Plan Policies, the Urban Water Management Plan, the Water Master Plan/Design Standards, as well as compliance with the PCWA, include additional principles and policies associated with water supply needs.

Figure 4.11-1 Proposed Water Supply Strategy for West Roseville Specific Plan



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FIGURE **4.11-1**

Proposed Water Supply Strategy for West Roseville Specific Plan
AF/yr = Acre Feet per Year

Source: City of Roseville, 2003

City of Roseville

Not to Scale

EIP ASSOCIATES

Because City and WRSP water supply would be sufficient to meet buildout demand in wet years, and no new surface water (beyond the 3,200 AF/year SJWD contract) or groundwater supplies would be needed for development of the WRSP, this is considered a **less-than-significant impact** for the WRSP.

Table 4.11-5 Water Demand and Supply: Remainder Area Average/Wet Years (Acre-Feet Per Year)

	Demand	Supply	Surplus (+) or Deficit (–)	Mitigation	Mitigation Amount	Surplus or Deficit
City plus WRSP	58,662	60,426	+1,764			
Remainder Area	5,431	1,112[1]	–4,319			
City plus Total SOI	***64,093***	***61,538***	***–2,555***	MM 4.11-1: Secure Adequate Water Supply[2]	7,100[3]	+4,545

NOTES:
1. Recycled water = 1,112 AF/year
2. This source is not assured because the City is not the only jurisdiction involved with its construction
3. City of Roseville portion of Sacramento River Water Reliability Project

Consistent with City development policies, groundwater could not be used to support development in wet/average years, so the shortfall would need to be met from other sources. Therefore, MM 4.11-1 requires that water be obtained from the Sacramento River Water Reliability Project (or from another as-yet-unidentified source) to provide enough water to serve the Remainder Area, in combination with the WRSP and General Plan buildout demand. MM 4.11-1 requires that the water supply must be secured prior to City adoption of any development approvals for the Remainder Area. With the exception of the proposed Sacramento River Water Reliability Project, no other potential sources of surface water supply have been identified for the Remainder Area to make up this deficit.

If constructed, the proposed Sacramento River Water Reliability Project would divert, treat, and deliver water from the Sacramento River. This project could include the following diversion amounts: up to 35,000 AF/year for the benefit of PCWA, up to 7,100 AF/year for the City of Roseville, up to 29,000 AF/year for the Sacramento Suburban Water District (SSWD, a consolidation of the Northridge Water District and the Arcade Water District), and up to 58,000 AF/year for the City of Sacramento. The City could make a portion of the 7,100 AF/year supply available to the Remainder Area to supplement planned surface water supplies if the Sacramento River Water Reliability Project is constructed.

The PCWA, SSWD, and City of Sacramento diversions of Sacramento River supply were included in the hydrologic modeling in the WFA EIR for purposes of identifying potential cumulative flow-related environmental impacts for wet/average, drier, and driest years for year 2030.[288] However, the 7,100

[288] Sacramento City-County Office of Metropolitan Water Planning, Water Forum Proposal EIR, Chapter 3, Project Description, Table 3-1a and Section 4.1, Modeling Assumptions, Table 4.1-2

AF/year supply for the City of Roseville was not included in the flow modeling, and the site-specific environmental effects of construction and operating the diversion facilities from the American River (as fully discussed in Environmental Setting of Section 4.11.2), including components that would divert and convey the 7,100 AF/year for Roseville, were not evaluated in the programmatic WFA EIR because the specific locations, design, and operating characteristics of all facility components had not yet been identified at the time the WFA EIR was publicly circulated and certified. In 2002/03, feasibility and environmental studies were initiated by PCWA and USBR to evaluate the feasibility of diversion locations and potential environmental effects of operating the diversion. Three potential diversion locations on the Sacramento River have been identified: Elkhorn (near Elverta Road at River Mile 73.3), Sankey (near the confluence with the Natomas Cross Canal), and Feather River near Nicolaus.[289]

Facilities that would be necessary to convey water from the Sacramento River Water Reliability Project to the City of Roseville for use in the Remainder Area would include a water treatment plant near the point of diversion, storage facilities, pump stations, and transmission lines. The final location of these facilities, including in-the-ground improvements connecting the diversion facility to City of Roseville water distribution lines, would depend on which design alternative is selected. To the extent that development of the Remainder Area would incrementally contribute to the increase in the amount of diversions from the Sacramento River and the need for construction and operation of the proposed water treatment plant and storage facilities at the Sacramento River Water Reliability Project and distribution system improvements, the surface water diversion to meet Remainder Area water demands could result in significant environmental impacts that have not yet been identified or mitigated. The impacts from development of these facilities could include short-term construction-related impacts such as construction equipment criteria air pollutant emissions, increased noise levels, disturbance of biological and/or cultural resources, and construction site runoff effects on water quality. Operational effects could include flow-related effects on aquatic and terrestrial resources, changes in visual elements along the river, noise from the treatment plant, impacts to recreation, and growth-inducement. Specific mitigation measures to address significant impacts related to the proposed Sacramento River Water Reliability Project, if any, have not been identified.

The proposed Sacramento River Water Reliability Project is not expected to be operational until at least 2010, so this water may not be available should portions of the Remainder Area develop before 2010. It would be economically infeasible for the City to develop the 7,100-AF/year diversion and the necessary water treatment facility without participation of other local and federal sponsors. Because the ability to construct and operate the Sacramento River Water Reliability Project is outside the jurisdiction and

[289] U.S. Bureau of Reclamation, Sacramento River Water Reliability Study, informational brochure, 2003

authority of the City of Roseville, and the project has not been approved nor subject to environmental review under CEQA/NEPA, it cannot be considered an assured source of water for the Remainder Area at this time.

A Notice of Intent/Notice of Preparation for a Draft Feasibility Report/EIR/EIS for the Sacramento River Water Reliability Project was published August 15, 2003. The current timeline for the Sacramento River Water Reliability Project indicates that the Draft EIR/EIS for the diversion project should be available in late 2004 or early 2005.[290]

As no other source has been identified, the feasibility and environmental effects of using surface water other than the Sacramento River Water Reliability Project cannot be determined at this time.

Because there is no assured source of water supply to meet future demand for the Remainder Area, this is considered a **significant and unavoidable** impact**.**

IMPACT 4.11-2:	**AVAILABILITY OF WATER SUPPLIES TO MEET DEMAND IN DRY YEARS.**	
Applicable Policies and Regulations:	Water Supply Assessment (SB 221 and 610) Urban Water Management Planning Act Water Conservation Projects Act Water Forum Agreement City of Roseville and Placer County General Plan Policies Urban Water Management Plan Water Master Plan/Design Standards PCWA	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.11-2 Reduced groundwater extraction for dry years (WRSP)	MM 4.11-1 (Secure adequate water supply)
Significance after Mitigation:	Less Than Significant	Significant and Unavoidable

During dry years, in accordance with the WFA and consistent with City practice, water conservation measures would be required, which would reduce water demand in the SOI Amendment Area to 11,850 AF/year (a reduction of approximately 623 AF/year compared to wet years, or five percent). For both wet and dry years, the project assumes a five percent reduction in water demand due to the use of water conservation measures. While the City assumes a ten percent reduction in water demand due to water conservation measures, this project assumes a lesser reduction because many structural water

conservation features have already been incorporated into the project design. The SOI Amendment Area water demand consists of 6,690 AF/year needed for the WRSP and 5,160 AF/year for the Remainder Area. At buildout of the General Plan, City dry year demand is estimated to be 46,120 AF/year, assuming a 5,500 AF/year reduction due to conservation measures.

As shown in Table 4.11-6, the City's dry-year supplies would total 50,200 AF/year, which would exceed General Plan buildout demand by 4,080 AF/year. As outlined in the WFA MOU, this is expected to be the minimum amount of water that will be available to the City of Roseville. In years that have been categorized as dry years, additional surface water supplies will be available based on the ramping of the surface water supply as outlined in the WFA. The City has determined a portion of the supply could be made available to the SOI Amendment Area without adversely affecting other customers, assuming implementation of extraordinary water conservation measures (which are required in the City's response to Stage Three through Stage Five drought conditions).

Table 4.11-6 Water Demand and Supply: SOI Amendment Area, Dry Years (Acre-Feet Per Year)

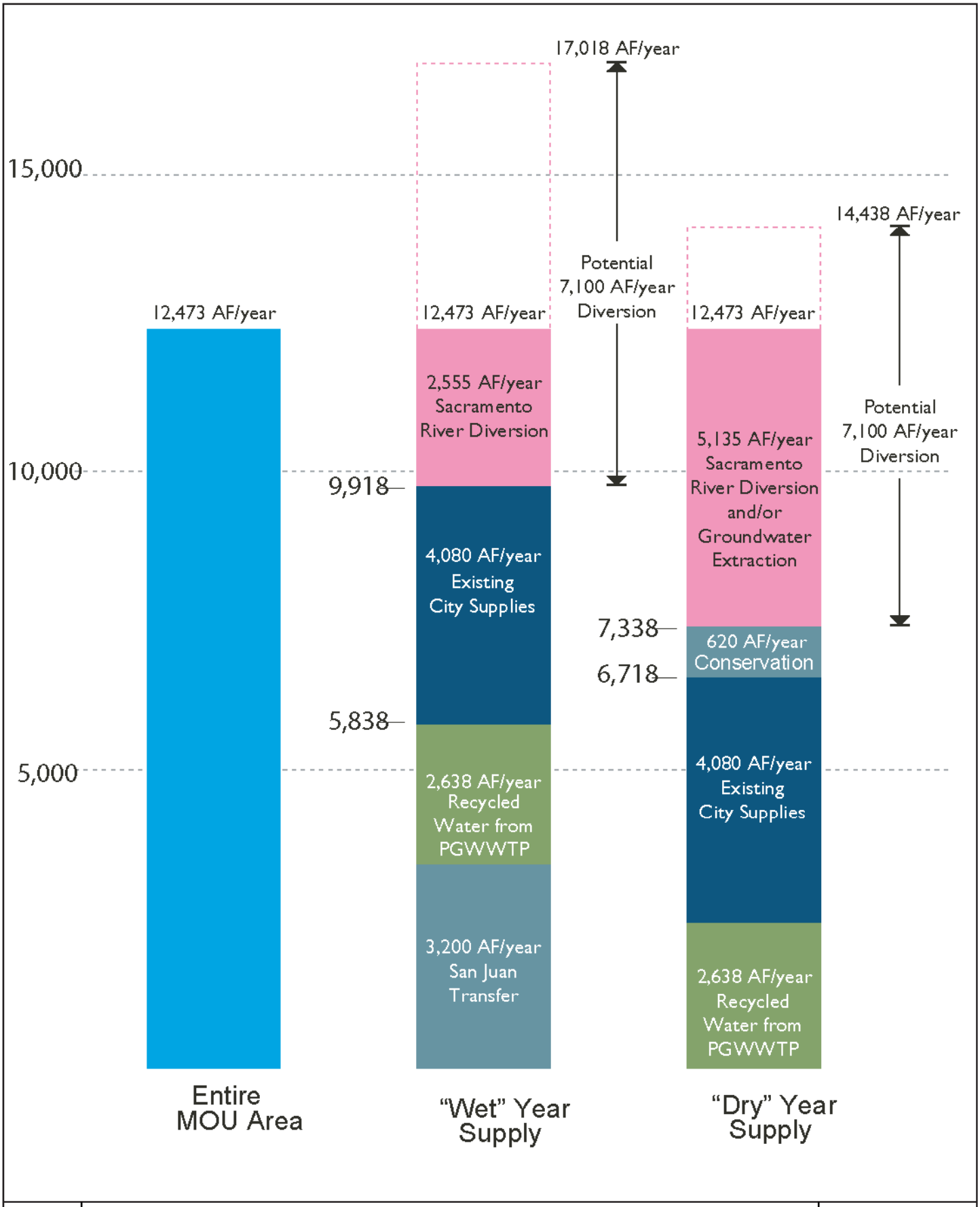
	Demand	Supply	Surplus (+) or Deficit (–)	Mitigation	Mitigation Amount	Surplus or Deficit
City of Roseville	46,120[1]	50,200[2]	+4,080			
SOI Amendment	11,850[3]	2,638[4]	-9,212			
City plus SOI Amendment	***52,970***	***52,838***	***-5,132***	MM 4.11-1: Secure Adequate Water Supply[2]	7,100	+1,968

NOTES:
1. Assumes 5,500 AF/year reduction in demand due to conservation measures, including rationing during severe drought (MWH TM 7, page 4).
2. WFA surface water allocation for dry years=39,800 AF/year; recycled water=3,000 AF/year; groundwater=7,400 AF/year (MWH TM 7, page 3)
3. Assumes 5 percent reduction in demand compared to wet years
4. Recycled water = 1,526 AF/year; no water would be available from SJWD in dry years.

The water supply sources for the SOI Amendment Area during the dry year conditions would differ from wet years. Figure 4.11-2 (Proposed Water Supply Strategy for SOI Amendment Area) illustrates the sources of supply for the SOI Amendment Area in dry years. The 3,200 AF/year SJWD water would not be available during dry years, but recycled water (2,638 AF/year) would be available for landscape irrigation. Even with the surplus of 4,080 AF/year and recycled water, an additional 5,132 AF/year of water would be needed in dry years for the SOI Amendment Area.

[290] U.S. Bureau of Reclamation, Sacramento River Water Reliability Study, informational brochure, 2003

Figure 4.11-2 Proposed Water Supply Strategy for SOI Amendment Area



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FIGURE **4.11-2**

Proposed Water Supply Strategy for SOI Amendment Area
AF/yr = Acre Feet per Year

Source: City of Roseville, 2003

City of Roseville

Not to Scale

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West Roseville Specific Plan

During dry years, in accordance with the WFA and consistent with City practice, water conservation measures would be required in the WRSP Area. As reflected in Table 4.11-7, the estimated dry year WRSP Area demand would be 6,690 AF/year, which reflects conservation of 352 AF/year (or 5 percent). The combined demand of the WRSP and the City at General Plan buildout would be 52,810 AF/year.

Table 4.11-7 Water Demand and Supply: West Roseville Specific Plan, Dry Years (Acre-Feet Per Year)

	Demand	Supply	Surplus (+) or Deficit (–)	Mitigation	Mitigation Amount	Surplus or Deficit
City of Roseville	46,120[1]	50,200[2]	+4,080/ 2,316[5]			
WRSP	6,690[3]	1,526[4]	–5,164			
City plus WRSP	***52,810***	***51,726***	***–1,084/ –2,848[5]***	MM 4.11-2: Reduced groundwater extraction for dry years (WRSP)	2,848[5]	0

NOTES:

1. Assumes 5,500 AF/year reduction in demand due to conservation measures, including rationing during severe drought (MWH TM 7, page 4).
2. WFA surface water allocation for dry years=39,800 AF/year; recycled water=3,000 AF/year; groundwater=7,400 AF/year (MWH TM 7, page 3)
3. Assumes 5 percent reduction in demand compared to wet years
4. Recycled water = 1,526 AF/year; no water would be available from SJWD in dry years.
5. Only 2,316 AF/year of the 4,080 surplus would be made available to the WRSP; therefore, the total amount of additional supply that would need to be developed by the WRSP is 2,848 AF/year

The City's dry year supply is limited to 50,200 AF/year, which would exceed City demand (without the WRSP) by 4,080 AF/year. As discussed under Impact 4.11-1, the City has determined it can provide 2,316 AF/year of the 4,080 AF/year of surplus water to the WRSP from existing City supplies. The 3,200 AF/year SJWD water would not be available during dry years for the WRSP, but approximately 1,526 AF/year of recycled water would be used for landscape irrigation. With the recycled water supply and water provided by the City, the total WRSP demand would still exceed supply by 2,848 AF/year (refer to Table 4.11-7).

Groundwater could be used to supplement supplies for the WRSP Area during dry and driest years, consistent with existing City (and regional) practice. As illustrated by Table 4.11-7, if 2,848 AF/year of groundwater (in addition to the 7,400 AF/year of groundwater included in the City's WFA dry-year supply) is used to make up the shortfall created by the WRSP, there would be sufficient water to meet the needs of both the City and the WRSP Area. Based on 70 years of historic data, which included the 1977 drought of record, the results of hydrologic modeling suggest that groundwater would only be required in 12 of 70 years, or 17 percent of the time.[291]

[291] MWH, *Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan*, Draft January 2003, p. 5-1

The West Roseville Guiding Principles and City-County MOU Development Standards assume that new development west of the City of Roseville would only rely on surface water supplies unless it can be demonstrated that the use of groundwater can be mitigated to less-than significant level, if feasible. The use of groundwater in dry years, although infrequent and consistent with current City practice, would, therefore, represent expansion of an existing water resource. This is considered a significant impact.

In addition, compliance with State regulations such as the requirement of a Water Supply Assessment that would ensure compliance with SB 221 and 610, the Urban Water Management Planning Act, and the Water Conservation Projects Act would address potential impacts to water supply and distribution. Further, local regulations, such as the Water Forum Agreement, City of Roseville and Placer County General Plan Policies, the Urban Water Management Plan, the Water Master Plan/Design Standards, as well as compliance with the PCWA, include additional principles and policies associated with water supply needs.

Implementation of MM 4.11-2 would ensure that groundwater use would not result in a reduction in available supply by requiring that the aquifer be replenished and that hydrologic modeling be used to demonstrate that groundwater supply would not be affected by the WRSP. Two options for replenishing the groundwater aquifer have been identified by the City: (1) an in-lieu groundwater banking program accomplished by the reduction or non-use of groundwater used for agricultural lands currently irrigated with groundwater in the project vicinity (e.g., Reason Farms) in dry years or (2) an aquifer storage and recovery (ASR) program.

For the WRSP, dry-year groundwater use mitigation would be accomplished by the City's commitment to forego the extraction of up to 1,830 acre-feet per year from the Reason Farms property. The City is acquiring and has set aside funds for the 1,500-acre Reason Farms property located north and west of the SOI Amendment Area for a regional stormwater retention facility. Approximately 560 acres of Reason Farms will be taken out of production to accommodate this facility. The City could choose to take all or a portion of the remaining irrigated acreage (up to 940 additional acres) out of production as well. The City may then extract groundwater from the site for overlying uses, appropriate for municipal purposes, or "bank" it by choosing to forego extraction of all or a portion of its annual legal entitlement. The City's commitment from the Reason Farms property in a dry year would fully offset the anticipated groundwater extraction under the City's proposed water supply strategy for meeting WRSP dry-year water demands.[293] (Refer to Impact 4.12-6 in Section 4.12 [Hydrology, Water Quality and Ground Water]

[292] MWH, *Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan*, Draft June 2003, pp. 5–7
[293] MWH, *Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan*, Draft June 2003, pp. 6-1

for a detailed discussion of potential environmental impacts of groundwater use and fallowing/land retirement mitigation.)

The City is currently investigating the feasibility of operating an aquifer storage recovery system (ASR). With the ASR system, surplus treated surface water would be injected into the subsurface aquifer through wells and stored during wet-weather years and during off-peak production periods. The stored water would then be withdrawn on an as-needed basis during dry years. The ultimate sources and mix of water supplies adopted in the overall water supply strategy would affect the requirements of, and potential need for, an ASR program. With an ASR program, it is anticipated that more water would be injected into the groundwater than would be withdrawn. The City is conducting a pilot program to determine the feasibility of an ASR program, but the results may not be available until late 2004, so it is assumed that the ASR program would not be available to serve the WRSP Area. Further, the ASR program would require an approved plan that identifies appropriate implementation measures, a mechanism to monitor effectiveness (which has not yet been developed), a well injection permit from the Regional Water Quality Control Board, and appropriate environmental review under CEQA. Accordingly, this EIR does not rely on the use of an ASR system to mitigate the WRSP's potential impacts to groundwater.

With implementation of MM 4.11-2, this impact would be **less than significant**, because there would be no net reduction in the aquifer from dry-year groundwater extraction.

Remainder Area

As indicated in Table 4.11-8, dry year water demand in the Remainder Area would be 5,160 AF/year, which includes a reduction of approximately 271 AF/year (or 5 percent) from the wet year demand to account for more stringent conservation efforts required during drought conditions as established in the City's UWMP. The combined demand of the Remainder Area, the WRSP, and City General Plan buildout would be 57,970 AF/year, or 5,131 AF/year more than available supply (refer to Table 4.11-7). As discussed in Impact 4.11-1, the City has determined it can provide 1,764 AF/year of the 4,080 AF/year of surplus water to the Remainder Area from existing City supplies. In addition, approximately 1,112 AF/year of recycled water for landscape irrigation would be available to the Remainder Area from regional facilities. With the recycled water supply, the total Remainder Area demand would still exceed supply by 4,048 AF/year. This is considered a significant impact**.**

Compliance with applicable State and local plans and policies associated with water supply described above would be required; however, these would not reduce impacts to a less-than-significant level.

Implementation of MM 4.11-1 would require that, to meet City buildout and ensure there would be no net effect on supply, water would be obtained from the Sacramento River Water Reliability Project (also known as the Sacramento River Diversion Project). Because the Sacramento River project would be required for the Remainder Area in wet years (the majority of years), and it would be adequate to meet dry year demand as well, no other source of water is considered for dry years.

Table 4.11-8 Water Demand and Supply: Remainder Area, Dry Years (Acre-Feet Per Year)

	Demand	Supply	Surplus (+) or Deficit (–)	Mitigation	Mitigation Amount	Surplus or Deficit
City plus WRSP	52,810	51,726	–1,084[1]/ –2,848[2]			
Remainder Area	5,160[3]	1,112[4]	–4,048			
City plus Total SOI	***57,970***	***52,838***	–5,131[5]/ –6,896	MM 4.11-1: Secure Adequate Water Supply	7,100[3]	1,969/204

NOTES:

1. Only 1,764 AF/year of the 4,079 surplus would be made available to the Remainder Area so the amount of additional supply that would need to be developed by the Remainder Area is 5,132
2. Only 2,316 AF/year of the 4,079 surplus would be made available to the WRSP, so the total amount of additional supply that would need to be developed by the WRSP is 2,848 AF/year
3. Assumes 5 percent reduction compared to wet years
4. Recycled water = 1,112 AF/year
5. City of Roseville portion of Sacramento River Reliability Project

If the proposed Sacramento River Water Reliability Project is approved and constructed, it could supply up to 7,100 AF/year. to the City, which would be sufficient to meet Remainder Area demand. However, as discussed in Impact 4.11-1 for the Remainder Area, the diversion project has not been approved, so it is uncertain at this time whether and when it would be constructed. Therefore, this impact is considered **significant and unavoidable**.

IMPACT 4.11-3:	**CAPACITY OF WATER TREATMENT SYSTEM TO MEET POTABLE DEMAND.**	
Applicable Policies and Regulations:	Water Master Plan City Improvement Standards	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Significant
Mitigation Measures:	None Required	MM 4.11-3 (Treatment plant capacity policies)
Significance after Mitigation:	Less Than Significant	Significant and Unavoidable

Water treatment for the City of Roseville is provided at the Barton Road WTP. The existing treatment plant has a capacity 60 mgd, and experienced peak demands of 49.5 mgd in July 2002. Two expansions to the Barton Road WTP are planned: an expansion to 75 mgd would be completed by mid-2006 and an

expansion to 100 mgd would be completed by mid-2010. While the SOI Amendment demand of 8.78 mgd (17.56 mgd peak day demand) would exceed the existing capacity of the Barton Road Water Treatment Plant in combination with existing demands, the SOI Amendment Area would not be built out for decades. In fact, construction is not estimated to begin until 2004/2005 and occupancy within the WRSP portion is not likely to occur until after the first expansion to the Barton Road WTP is completed. Therefore, demand for water treatment must be considered in the context of existing entitlements and buildout of the City's current General Plan.

The Water Master Plan contains criteria used to ensure that subsequent water facility distribution systems are adequately designed and constructed. In addition, City improvement standards provides engineering design criteria of the domestic water system that would serve the proposed SOI Amendment Area.

The WTP Master Plan-approved design capacity of 100 mgd at the Barton Road WTP is sufficient to meet buildout demand for areas within the existing City limits as demonstrated by the City's Urban Water Master Plan, which shows that buildout demands are less than the 100 mgd of the planned plant capacity. Any water supply required beyond 100 mgd cannot be provided through Roseville facilities due to infrastructure and water supply constraints. Development of the entire SOI Amendment Area, in combination with other planned development in the City through buildout, would increase the demand for water treatment for potable uses to approximately 107.12 mgd at the Barton Road WTP.[294] If the Sacramento River Water Reliability Project is constructed, which would include up to 10 mgd treatment capacity for Roseville, the total treatment demand for the Barton Road WTP could be maintained below the 100-mgd WTP master plan.

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Development of the WRSP Area, in combination with other City demand for water treatment, would result in an average/wet year water treatment demand at the Barton Road WTP of approximately 99.41 mgd.[295] This would not exceed the planned 100-mgd capacity of the Barton Road WTP. In dry years, when water levels in Folsom Lake would be approaching 392 feet, the City's diversions from Folsom Lake would be limited to 39,800 AF/year, and the 3,200 AF/year SJWD untreated surface supply would

[294] Treatment demand developed by City of Roseville staff, as follows: City buildout water demand treatment (50,162 AF/year, which consists of City buildout water demand of 51,621 AF/year minus current recycled water use of 1,458 AF/year) + SOI surface water (9,835 AF/year, which consists of 3,200 AF/year of SJWD supply plus 4,080 AF/year of surplus water made available to the SOI Amendment Area plus 2,555 AF/year required to meet the demands of the SOI Amendment Area and City buildout conditions) = 59,992 AF/year = 53.56 mgd Average Day demand or 107.12 mgd Peak Day.

[295] Potable water treatment demand for the Barton Road WTP was estimated as follows: General Plan buildout potable demand 89.56 mgd + WRSP potable demand 9.85 mgd = 99.41 mgd total potable peak demand for the City plus WRSP Area.

not be available to the WRSP Area, so the capacity of 96 mgd provided through the USBR pumping facility would not be a constraint. These deliveries, therefore, would not be included in the treatment demand total during dry years. In addition, conservation measures would be imposed for the City and WRSP Area. The combination of these factors would reduce the amount of water requiring treatment at the Barton Road WTP for buildout of the City's General Plan and the WRSP to 71.06 mgd.[296] This would be well below the 96-mgd pump capacity limit. Therefore, water treatment impacts for the WRSP would be **less than significant**.

Remainder Area

If the Remainder Area was developed at levels similar to those proposed in the WRSP, at buildout, the Remainder Area would contribute to treatment demand. When considered with the City General Plan buildout and the WRSP Area demand, the need for treatment as a result of developing the Remainder Area would be approximately 107.12 mgd in wet years, which would exceed the WTP planned capacity of 100 mgd. This is a significant impact**.** In dry years, the potable treatment demand would be 71.06 mgd, which reflects reductions in surface water deliveries, as described for the WRSP, so capacity would not be exceeded.

Water treatment for the Remainder Area could be provided by the City's allotment of treatment capacity at the proposed Sacramento River Water Reliability Project. Implementation of MM 4.11-3 would ensure that sufficient treatment capacity is available prior to each phase of Remainder Area development without affecting existing City commitments, and that there is a mechanism to fund the Remainder Area's contribution to the incremental demand for potable water treatment. However, this would not reduce the impact to a less-than-significant level because the diversion project has not been approved, and environmental documentation under CEQA has not been completed. Therefore, the impact would remain **significant and unavoidable**.

[296] Dry-year treatment demand for the Barton Road WTP and USBR Folsom Pumping Plant Capacity were estimated as follows: City surface supply limited to 39,800 AF/year = 71.06 mgd maximum day treatment demand.

IMPACT 4.11-4:	EXTENSION OF EXISTING POTABLE WATER DISTRIBUTION SYSTEM.	
Applicable Policies and Regulations:	Water Master Plan City Improvement Standards	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Significant
Mitigation Measures:	None Required	MM 4.11-4 (Potable water storage facility policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

West Roseville Specific Plan

Water would be distributed within the WRSP Area via a looping system that parallels collector and arterial roadways on a transmission main grid. The transmission and distribution system consists of 12-inch to 24-inch diameter mains. Four ground water supply wells are planned to ensure water supply service during shortages and in emergency situations.

Development of the WRSP would result in a total average annual daily potable water demand of approximately 4,371 gpm.[297] The results of the hydraulic modeling presented in the Master Water Study identified the necessary infrastructure improvements to serve proposed development in the WRSP Area while taking into consideration existing service and capacity limits. These components are described below.

To connect the WRSP Area to the City's existing potable water system, two major off-site water mains in the Del Webb development to the east of the WRSP Area would be extended west to Fiddyment Road. A 24-inch connection would be made at the intersection of Blue Oaks Boulevard and Del Webb Boulevard. It would be extended along the Blue Oaks Boulevard west approximately 2,600 feet to Fiddyment Road, where a new 24-inch main to serve the WRSP Area would connect. An existing 24-inch main in Del Webb Boulevard would be extended approximately 1,100 feet west to Fiddyment Road, to connect with a new 24-inch line in the WRSP Area. Two other points of connection (an existing 16-inch line in Pleasant Grove Road and an existing 24-inch line in Baseline Road) would not require extension because these lines already extend to Fiddyment Road.[298] All water pipeline extensions would be installed in existing or planned roadways.

[297] Wood Rodgers Inc., *Draft Water Master Study for West Roseville Specific Plan Area (Fiddyment Ranch/Westpark Properties)*, May 2003, p. 14
[298] Wood Rodgers Inc., *Draft Water Master Study for West Roseville Specific Plan Area (Fiddyment Ranch/Westpark Properties)*, May 2003, Figures 2-1 and 6-1

Potential environmental effects that could occur as result of installation of these off-site improvements are addressed in Section 4.4 (Air Quality), Section 4.5 (Noise), Section 4.7 (Biological Resources), Section 4.8 (Cultural Resources), and Section 4.12 (Hydrology, Water Quality and Ground Water).

The on-site potable water distribution system would be a looped system following the major arterial and collector street alignments. The sizes of major distribution mains would range from 12 inches to 24 inches. Smaller distribution mains within subdivisions would consist primarily of 8-inch and 12-inch lines surrounding schools, commercial areas, and high-density residential uses. Figure 4.11-3 (West Roseville Specific Plan Water Distribution System, Storage Tanks, and Well Locations) shows the planned water system if it were built as a single phase.[299] Phasing plans would be developed to ensure that looping of infrastructure is maintained during development of the WRSP Area and that fire flow and levels of service are maintained.

The *Master Water Plan* identified that approximately 6.0 million gallons of treated water storage would be required to supply operational flow (2.47 million gallons), emergency flow (2.47 million gallons), and fire flow (1.08 million gallons) potable water demands. This amount assumes no emergency, operational, or fire flow storage capacity in the existing City system to serve the SOI Amendment Area.[300]

To provide up to 6.0 million gallons of storage, a 5.1-acre parcel has been designated on the WRSP land use plan to accommodate two potable water tanks and a booster pump station. The parcel is located south of the PGWWTP west of Phillip Road (refer to Figure 4.11-3). The booster pump station would supply demands in excess of the WRSP maximum day demands.[301] Refer to Section 4.13 (Aesthetics and Visual Resources) for a discussion of visual impacts related to the storage tanks. Construction-related air quality and noise effects of tank installation (as part of development of the WRSP) are addressed within the overall context of construction-related impacts in Impact 4.4-1 in Section 4.4 (Air Quality) and in Impact 4.5-1 in Section 4.5 (Noise).

Four groundwater wells would be installed in the WRSP Area (two in Phase 1, one in Phase 3, and one in Phase 4). Preliminary locations are shown in Figure 4.11-3. These wells would be used to provide groundwater only in dry years or emergency events when surface water supplies are not sufficient to meet demand, as described in Impact 4.11-2. Chlorination and fluoridation would be provided at the wellhead. Refer to Impact 4.9-1 in Section 4.9 (Hazards and Hazardous Materials) for a discussion of

[299] Wood Rodgers Inc., *Draft Water Master Study for West Roseville Specific Plan Area (Fiddyment Ranch/Westpark Properties)*, May 2003, p. 28 and Figure 6-1
[300] Wood Rodgers Inc., *Draft Water Master Study for West Roseville Specific Plan Area (Fiddyment Ranch/Westpark Properties)*, May 2003, p. 25
[301] Wood Rodgers Inc., *Draft Water Master Study for West Roseville Specific Plan Area (Fiddyment Ranch/Westpark Properties)*, May 2003, p. 25

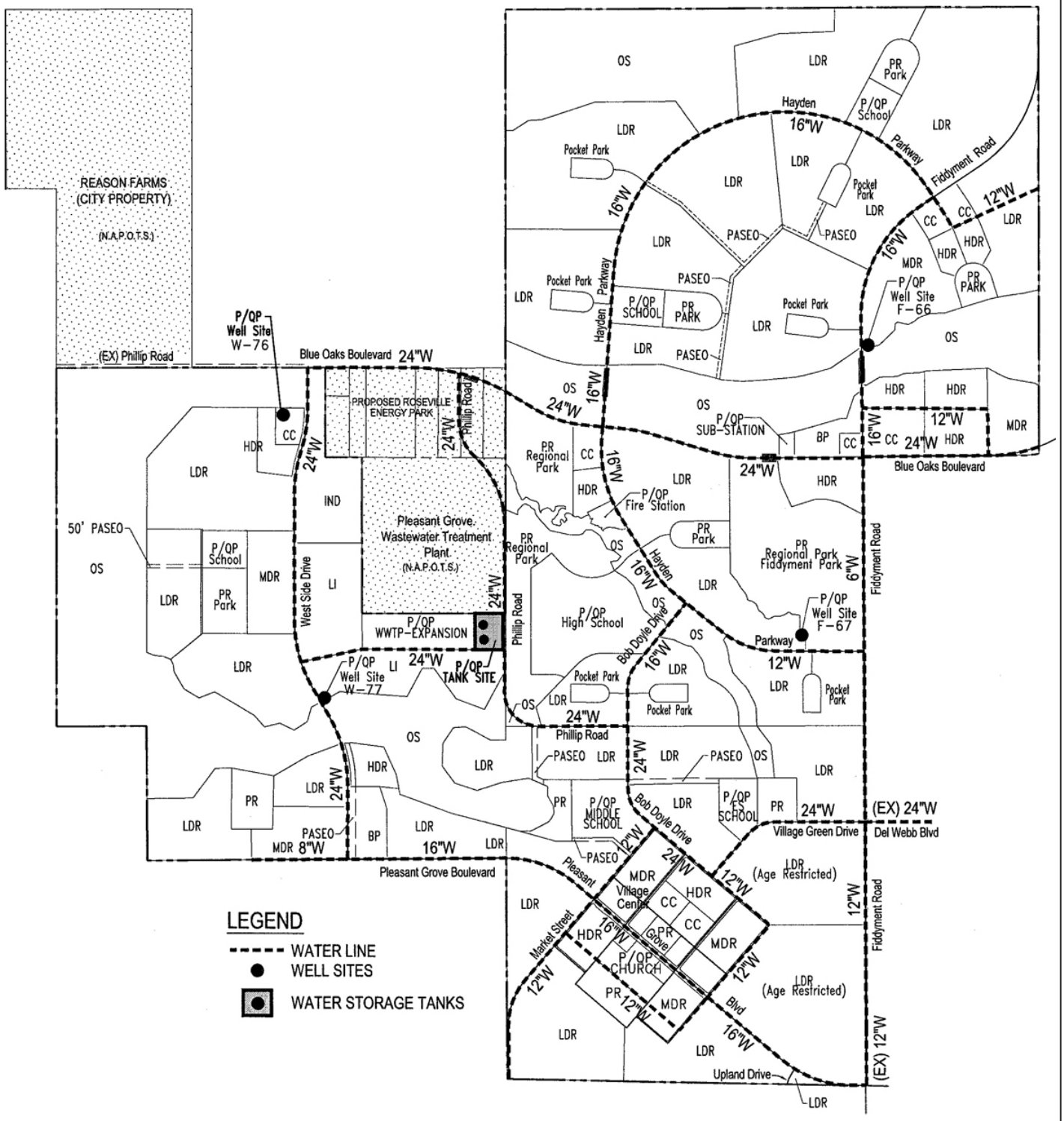


FIGURE **4.11-3**

West Roseville Specific Plan Water Distribution System, Storage Tanks, and Well Locations

Scale: 1" = 2000'

10659-00

***Source*:** West Roseville Specific Plan 2003 City of Roseville

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potential effects associated with treatment facilities. Potential impacts on groundwater resources are discussed in Impact 4.12-6 in Section 4.12 (Hydrology, Water Quality, and Groundwater). Construction-related air quality and noise effects of well installation are addressed within the overall context of construction-related impacts in Impact 4.4-1 in Section 4.4 (Air Quality) and in Impact 4.5-1 in Section 4.5 (Noise).

With the added demand of the WRSP Area to the City system at General Plan buildout, pressures and water main velocities would be affected slightly. The addition of the WRSP Area under maximum day demand would not result in an exceedance of the City's 6 feet per second (fps) maximum day velocity criterion, but it would cause the 6 fps criterion to be slightly exceeded for peak hour demand at the locations identified in the Environmental Setting. Water system pressures would also decrease during maximum day conditions by approximately 2 to 4 psi at a few locations. These locations would be affected under City General Plan buildout conditions even if the WRSP Area were not developed.[302] City staff do not consider the minor increases in velocity and slight decreases in water pressure substantial and are continuing to evaluate what, if any, improvements are necessary to correct the existing condition, as noted in the Setting.[303] Distribution system modifications, which would take into account the effect of WRSP demand, would be limited in extent and would be within existing roadway alignments and developed areas, which would not result in substantial construction-related air emissions or noise levels that would result in significant environmental effects.

The Water Master Plan contains criteria used to ensure that subsequent water facility distribution systems are adequately designed and constructed. In addition, City improvement standards provides engineering design criteria of the domestic water system that would serve the proposed SOI Amendment Area. Prior to, or in conjunction with, approval of the tentative maps for the WRSP, the final design of the potable water distribution and storage facilities would require City approval. This would ensure that the facilities would be designed, located, and constructed in accordance with City standards; therefore, the impact would be **less than significant**.

Remainder Area

If the Remainder Area was developed at densities and intensities similar to those proposed in the WRSP, this would result in a total average annual daily potable water demand of approximately 3,416 gpm.[304]

[302] Wood Rodgers Inc., *Draft Water Master Study for West Roseville Specific Plan Area (Fiddyment Ranch/Westpark Properties)*, May 2003, pp. 33–38

[303] Ed Kriz, written notes, June 19, 2003

[304] Wood Rodgers Inc., *Draft Water Master Study for West Roseville Specific Plan Area (Fiddyment Ranch/Westpark Properties)*, May 2003, p. 14

Additional potable water distribution pipelines, storage tanks, and wells for dry-year supply would be needed. It is assumed the Remainder Area would connect to the WRSP potable water supply infrastructure. The hydraulic modeling for the WRSP considered development of the Remainder Area in determining on-site pipeline diameters and flows, based on general land use assumptions, to ensure level of service criteria would be met. Therefore, development of the Remainder Area, in combination with the WRSP Area, is not expected to require upsizing of proposed major water mains in the WRSP Area to meet operational, emergency, or fire flow demands.[305] It is assumed the on-site distribution system in the Remainder Area, which would consist of 12- to 24-inch lines, would connect to mains in Blue Oaks Boulevard, Pleasant Grove Boulevard, and Baseline Road.[306] Existing City infrastructure was not considered for impacts of Remainder Area water demands because the supply was assumed to come from the Sacramento River and, therefore, would not be conveyed through existing City facilities.

The total storage demand for the Remainder Area is 4.0 million gallons (mg).[307] This storage volume and associated booster pump capacity were accounted for in the siting and design of the potable water storage tanks on the five-acre parcel south of the PGWWTP. Options for increasing the amount of storage from the 6.0 mg required for the WRSP Area could include constructing larger tanks initially during development of the WRSP Area or adding new tanks to the WRSP Area. Additional booster pump capacity could be provided by designing the WRSP booster pump facility to allow for future expansion. Without such facilities, the amount of water needed to serve the operational, emergency, or fire flow demands of the Remainder Area may be insufficient. This is considered a potentially significant impact.

Implementation of MM 4.11-4 would reduce this impact to a **less-than-significant** level by ensuring appropriate tank sizing and booster pump capacity for the Remainder Area is incorporated into the siting and design of the proposed WRSP water storage facilities, or that an alternate site is identified in the Remainder Area and incorporated into any eventual tentative map.

Mitigation Measures

MM 4.11-1 *Secure adequate water supply for wet and dry years (Impact 4.11-1 and Impact 4.11-2 — Remainder Area).*

Specific plans and/or development proposals for the Remainder Area shall identify a source of surface water supply sufficient to serve Remainder Area development. At this time, it is anticipated that the source would be the

[305] Brett Williams, Wood Rodgers, Inc., personal communication, September 26, 2002

[306] Wood Rodgers Inc., *Draft Water Master Study for West Roseville Specific Plan Area (Fiddyment Ranch/Westpark Properties)*, May 2003, Figure 6-1

[307] Wood Rodgers Inc., *Draft Water Master Study for West Roseville Specific Plan Area (Fiddyment Ranch/Westpark Properties)*, May 2003, p. 26

Sacramento River Water Reliability Project. Prior to the City's approval of any plan for the Remainder Area, the applicant shall demonstrate that the Sacramento River Water Reliability Project has been subjected to environmental review, approved and funded, and that its construction will be completed by the time that the water is needed for Remainder Area development. The applicant shall contribute a fair share toward the funding of the diversion project.

As an alternative, an applicant may secure another source of surface water. Such a source would need to be legally available and sufficient to meet the demand of the project, consistent with the Water Forum Agreement and City policies and California Water Code Section 10910 *et seq*. and Government Code Section 66473.7 subject to a completed environmental review, approved by the agency with jurisdiction over the source, and funded.

MM 4.11-2 Reduced groundwater extraction of agricultural land during dry years (Impact 4.11-2 — WRSP)

As a condition of approval of any Tentative Tract Map for the WRSP Area, and to supplement assured supplies, the City shall ensure that groundwater in the amount of 2,848 AF/year is available for use in the WRSP Area in dry years by reducing groundwater extraction at Reason Farms.

MM 4.11-3 Expand treatment plant capacity (Impact 4.11-3 — Remainder Area)

Prior to City approval of any proposed development projects in the Remainder Area, the applicant shall demonstrate to the satisfaction of the Roseville Environmental Utilities Director that the Sacramento River Water Reliability Project water treatment facilities or substantially equivalent facilities approved by the City Council will provide the project with sufficient potable water by the time construction of the project is to begin. The development application for the project shall include a mechanism to fund the project's pro rata share of the construction costs of the Sacramento River Water Reliability Project water treatment facilities or alternative approved facilities.

MM 4.11-4 Potable water storage facility policies (Impact 4.11-4 — Remainder Area)

Prior to approval of a Tentative Tract Map for the WRSP Area, the maximum amount of potable water storage needed to serve the Remainder Area shall be identified, taking into consideration WRSP Area demand, existing storage capacity, and planned phasing of WRSP Area development. The City shall ensure that a sufficient amount of land has been set aside at the proposed location for the WRSP Area storage facilities to allow for expansion that could accommodate Remainder Area storage needs. Either the booster pumping facility shall be designed to allow for possible expansion or, prior to Tentative Tract Map approval for the Remainder Area, an alternate site for the storage facility shall be identified within the Remainder Area. If an alternate site is

selected, it would be subjected to environmental review and designated on preliminary land use plans. In addition, the size of the water line that would convey water to the tank(s) at an alternate site under low-demand condition shall be determined and evaluated.

RECYCLED WATER

The use of recycled water has been demonstrated to be an effective means for meeting the demand for new water caused by drought conditions and growth in California (Water Code Section 13555.2).

4.11.5 Environmental Setting

Existing Recycled Water Supplies

Treated wastewater from the Dry Creek WWTP (DCWWTP) located on Dry Creek near the Union Pacific Railroad Yard in Roseville produces recycled water for use within the City. Phase I of the City's recycled water plan included providing recycled water from the existing DCWWTP and distribution system to Del Webb Specific Plan, Woodcreek Oaks Golf Course, Junction Boulevard Streetscapes, and Elliot Park. An existing recycled water pump system at the DCWWTP supplies this system. Phase II, which was completed in 2002, added a storage tank, pump station, and distribution pipeline to provide recycled water to the Diamond Oaks Golf Course, West Placer CFD No. 1, and several other customers.

Current average annual wastewater flow to the DCWWTP is approximately 15 mgd.[308] The recycled water distribution system operates under a Master Water Reclamation Permit (Order No.97-147) issued by the Regional Water Quality Control Board (RWQCB). This permit outlines specific prohibitions on the use of recycled water in the City and places stringent water quality and treatment and disinfection standards on the City's recycled water.[309] The SOI Amendment Area is undeveloped and is not connected to the existing recycled water distribution system.

Planned Recycled Water Supplies

Recycled Water Planning

Current and future recycled water planning efforts for the City of Roseville are described in the Recycled Water Distribution System Feasibility Study (April 2000). The study includes estimates of recycled water demands, describes recycled water distribution systems, and identifies features associated with the

[308] HydroScience Engineers, Recycled Water Study for West Roseville Specific Plan Area, May 21, 2003, Table 5
[309] City of Roseville, 2002 Urban Water Management Plan, July 2002, Appendix H (Recycled Water Distribution System Feasibility Study Excerpts), p. 1-1

phased expansion of the system, including recycled water that will be generated by the PGWWTP when it becomes operational in fall/winter 2003. The Feasibility Study was prepared prior to consideration of the proposed WRSP and SOI Amendment.

Phase III of the City's recycled water plan, which is anticipated to be constructed by approximately 2005 after completion of the PGWWTP, anticipates expanding the system further to the remaining customers identified in the Feasibility Study. The Phase III project assumes a cumulative total demand of 4,300 AF/year. As part of the Phase III project, new and existing pipelines would convey recycled water from the PGWWTP to the storage tank constructed in Phase II. The Phase III project also identifies a new 20-inch-diameter pipeline from the PGWWTP to pumping facilities in Fiddyment Road.[310] Phase III would serve the remaining City of Roseville and regional partner customers.

As stated above, the Feasibility Study did not consider the SOI Amendment Area. Since some of the customers identified in Phase III of the Feasibility Study are also in the SOI Amendment Area, reconciliation of existing City demands was necessary. The HydroScience Recycled Study for the WRSP[311] reconciled the existing City demands for Phase III to be 3,211 AF/year in lieu of the 4,300 AF/year presented in the Feasibility Study.

Pleasant Grove Wastewater Treatment Plant

The PGWWTP is under construction on the west side of Phillip Road, south of the future extension of Blue Oaks Boulevard (refer to Figure 2-3 [West Roseville Specific Plan Land Use Plan] provided in Chapter 2 [Project Description]). The PGWWTP will provide tertiary-level treatment through the process of screening, grit removal, extended aeration, secondary clarification, filtration, chlorination, and dechlorination.[312] The plant will provide full nitrification and will produce recycled water that meets Title 22 regulations for full unrestricted use.[313] The first phase of construction of the PGWWTP is anticipated to be operational by fall/winter 2003.[314] The second phase is anticipated to be operational between 2010 and 2012.[315] The dates for construction of Phase 2 may be adjusted as necessary to meet the demands of new wastewater flows and changes in water quality regulations.[316] The PGWWTP is anticipated to generate an

[310] HydroScience Engineers, Recycled Water Study for West Roseville Specific Plan Area, May 21, 2003, pp. 1–2
[311] HydroScience Engineers, Recycled Water Study for West Roseville Specific Plan Area, May 21, 2003, Tables 5 & 6
[312] Montgomery Watson, City of Roseville: Roseville Regional Wastewater Treatment Service Area Master Plan, May 1996, p. ES-21
[313] Kelye McKinney, P.E., City of Roseville, Personal Correspondence, June 10, 2002
[314] Art O'Brien, City of Roseville, Personal Correspondence, January 28, 2003
[315] Kelye McKinney, P.E., City of Roseville, Personal Correspondence, June 10, 2002
[316] Montgomery Watson and ESA, City of Roseville: Roseville Regional Wastewater Treatment Service Area Master Plan Draft Environmental Impact Report, May 1996, p. 2-47

annual average day supply of 5.1 mgd of recycled water in 2005, increasing to 10.8 mgd by 2020, for use in the City, before the SOI Amendment Area. [317]

The PGWWTP will require a separate Master Water Reclamation Permit from the RWQCB. The City prepared an "Engineering Report on the Production, Distribution, and Use of Recycled Water" in accordance with Title 22 of the California Code of Regulations for the PGWWTP. The report, which was submitted to the Department of Health Services (DHS) and RWQCB for approval in 2000, identifies best management practices and measures to ensure that the PGWWTP recycled water plan is consistent with Title 22 regulations.

Regional Recycled Water Facilities

When the PGWWTP becomes operational, recycled water from the PGWWTP and the existing DCWWTP will comprise the "regional recycled water facilities" that would produce recycled water for use in the City including the SOI Amendment Area if developed, and the City's regional partners' service areas. The percentage split in wastewater flows between the DCWWTP and the PGWWTP was established in the *Roseville Regional Wastewater Treatment Service Area Master Plan 1996* (WWMP). The estimated recycled water supply from both the DCWWTP and the PGWWTP before the contribution of wastewater flows from the SOI Amendment Area is summarized in Table 4.11-9.

Table 4.11-9 Recycled Water Supply Available from Roseville Regional Facilities (Before SOI Amendment)

Year	Total Average Annual Supply from DCWWTP (Flows, in mgd)	Total Average Annual Supply from PGWWTP (Flows, in mgd)	Total Average Annual Recycled Water Supply (Flows, mgd)
2002	10.1	5.1	15.2
2005	12.1	5.6	17.7
2010	11.1	9.2	20.3
2015	12.2	10.2	22.4
2020	13.0	10.8	23.8
2030	14.3	11.9	26.2

SOURCE: HydroScience Engineers, *Recycled Water Study for West Roseville Specific Plan Area*, May 21, 2003, Tables 5 and 6

Recycled Water Demand

City Demand

Existing demand for recycled water use in the existing City limits is estimated to be approximately 1,458 AF/year (1.3 mgd average day demand).[318] The City's recycled water model indicates that approximately

[317] HydroScience Engineers, Recycled Water Study for West Roseville Specific Plan, May 21, 2003, Tables 8 and 9

700 gallons per minute (gpm) of additional constant flow into the recycled water tank at located at Woodcreek Oaks Golf Course is needed to meet the peak demand for the Phase III customers. This 700-gpm supply is planned to come from the PGWWTP.[319]

Also, the City's Electric Utility, Roseville Electric, is currently planning a proposed energy facility consisting of a 150 MW power plant to be located on 40-acres of a 70-acre site located just north of the PGWWTP. This plant will use recycled water for cooling. An additional demand of 1,008 gpm of constant flow will be supplied by the PGWWTP to the proposed energy facility.

4.11.6 Regulatory Setting

Federal

There are no federal regulations with regard to recycled water that pertain to the SOI Amendment.

State

DHS regulations require that recycled water must be conveyed in a totally separate distribution system from the potable water supply. Professional landscape maintenance contractors and City maintenance staff must maintain areas where recycled water will be used for irrigation. The City is responsible for implementing a cross-connection program to ensure that future potable services are not accidentally connected to the recycled water system and a public information program (including signage) is established to notify the public of the use and location of recycled water application. Regulatory considerations pertaining to the treatment of wastewater for reclamation purposes are described in Section 4.9, Hazardous Materials and Public Safety.

The recycled water distribution system operates under a Master Water Reclamation Permit (Order No.97-147) issued by the Regional Water Quality Control Board (RWQCB). This permit outlines specific prohibitions on the use of recycled water in the City and places stringent water quality and treatment and disinfection standards on the City's recycled water.[320]

[318] Based on existing recycled water contracted deliveries to customers
[319] HydroScience Engineers, Recycled Water Study for West Roseville Specific Plan Area, May 21, 2003, p. 24
[320] City of Roseville, 2002 Urban Water Management Plan, July 2002, Appendix H (Recycled Water Distribution System Feasibility Study Excerpts), p. 1-1

Local

It is the policy of the City of Roseville that where the use of recycled water is feasible, appropriate, and acceptable to all applicable regulatory agencies, the City will require an owner or customer to use recycled water in lieu of potable water where appropriate. Requirements for recycled water use are described in Roseville Municipal Code Chapter 14.17 and City of Roseville Rules and Regulations for the Use of Recycled Water. The Recycled Water Division of the Environmental Utilities Department manages recycled water use in the City of Roseville.[321]

4.11.7 Impacts and Mitigation Measures

Methods of Analysis

As discussed above in Regulatory Setting section of Section 4.11.2 (Water), recycled water from the PGWWTP is an assured source of supply that would be available to serve the SOI Amendment Area.

This analysis of recycled water distribution system requirements was prepared by HydroScience Engineers, Inc., and incorporated into the impact discussion. The HydroScience Engineers, Inc. study is based on the City of Roseville *Recycled Water Distribution System Feasibility Study* (April 2000), design characteristics of the PGWWTP recycled water pump station; existing recycled water supply availability, including demand associated with the proposed Roseville Energy Park (if approved); water demand and supply data developed by MWH; site-specific irrigation factors and conditions; and proposed phasing of the development of WRSP Area and Remainder Area. Operational storage required to meet hourly peak recycled water flow rates was calculated using a 24-hour water balance. The water balance assumed the PGWWTP would first provide a supplementary constant supply of 700 gpm to the Woodcreek Oaks Golf Course recycled water tank. The analysis also assumed a constant supply of 1,008 gpm to the proposed energy facility (refer to Chapter 5 [CEQA Considerations—Cumulative Impacts], for additional information regarding this facility).[322]

This analysis assumes that the PGWWTP would be the sole source of recycled water for the SOI Amendment Area. In estimating how much recycled water would be available to the SOI Amendment Area from the PGWWTP and how much surplus recycled water would be available for other uses, HydroScience redirected a percentage of flows from the existing DCWWTP to the new PGWWTP consistent with the WWMP and assumed a conservative wastewater generation rate of 200 gpd per

[321] City of Roseville, 2002 Urban Water Management Plan, July 2002, pp. 34–35
[322] HydroScience Engineers, Recycled Water Study for West Roseville Specific Plan Area, May 21, 2003, p. 24

equivalent dwelling unit (EDU). Then, the amount of recycled water generated by the SOI Amendment was calculated using the same generation factor (200 gpd/EDU) applied to the total residential EDUs (8,430 for the WRSP Area and a total of 15,453 for the SOI Amendment Area).[323] Using only the residential EDUs from the WRSP and SOI Amendment Area conservatively estimates the recycled water supply from these areas.

The distribution system was modeled using Cybernet version 5.0 and AutoCAD 2000. Pipeline alignments were assumed to be located in arterial roadways to provide a backbone distribution system. One storage reservoir and one pump station were modeled at the PGWWTP. The analysis of recycled water storage and distribution assumed the demands of both the WRSP Area and Remainder Area. The hydraulic model was run under peak hourly flow conditions. Minimum pipeline diameters were selected to achieve required pressure and velocity criteria.[324]

It should be noted that the 2,638 AF/year of recycled water in the SOI Amendment Area assumed in the water supply analysis (Section 4.11.2, and Table 4.11-6) is less than the 2,839 AF/year demand of recycled water developed by HydroScience in the Recycled Water Study for the WRSP. The 2,638 AF/year quantity included in the water supply studies prepared by MWH is considered worst-case from an available water supply perspective since more potable water would need to be provided. The 2,839 AF/year estimate included in the Hydro-Science Engineers Recycled Water Study for the WRSP is considered worst-case from a recycled water treatment and conveyance capacity perspective since more water would need to be treated and distributed.

Standards of Significance

For the purposes of this EIR, a significant impact would occur if the development proposed in the SOI Amendment Area would

- Result in or require the construction or expansion of recycled water distribution and storage facilities that could create significant environmental effects

[323] HydroScience Engineers, Recycled Water Study for West Roseville Specific Plan Area, May 21, 2003, p. 24 and Table 6
[324] HydroScience Engineers, Recycled Water Study for West Roseville Specific Plan Area, May 21, 2003, p.29

Impacts

IMPACT 4.11-5:	AVAILABILITY OF RECYCLED WATER TO MEET DEMAND AND INSTALLATION OF RECYCLED WATER INFRASTRUCTURE.	
Applicable Policies and Regulations:	City of Roseville Municipal Code Regional Water Quality Control Board Reclamation Permit	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

Recycled Water

Recycled water is a part of the overall water supply strategy for the SOI Amendment Area, as discussed in Impacts 4.11-1 and 4.11-2. Recycled water from the PGWWTP would be used for landscape irrigation of parks, schools, publicly landscaped areas (i.e., roadway medians, paseos), and other landscaped areas in commercial, light industrial, industrial, and high-density residential uses within the SOI Amendment Area. The RWQCB Permit as well as the City of Roseville Municipal Code outline specific requirements and standards associated with the use of recycled water.

The average annual recycled water demand for the SOI Amendment is estimated to be 2.53 mgd (2,638 AF/year)[325]. The peak day demand is estimated to be 6.34 mgd. As the data in Table 4.11-10 indicate, the total average amount of recycled water available to the SOI Amendment Area (accounting for the 700 gpm supplement to the Woodcreek Oaks recycled water tank and without the proposed energy facility) from the PGWWTP is 14.6 mgd (in 2030). The peak daily supply available to the SOI Amendment Area is 12.8 mgd. The amount of recycled water would be sufficient to meet demand in the SOI Amendment Area, and there would be supply remaining at the PGWWTP for other City projects. On-site infrastructure for the recycled water system would consist of storage facilities and distribution lines. A location north of the PGWWTP, west of Phillip Road and south of Blue Oaks Boulevard has been identified for the recycled water storage tank and pump station. The tank would be sized to hold the estimated amount of storage required for the SOI Amendment Area, which would be 3.14 MG. Considering the constant supply of 1,008 gpm to the proposed energy facility, the tank would need to store 3.85 MG. The locations of recycled water lines in the WRSP Area have been identified and are illustrated by Figure 4.11-4 (West Roseville Specific Plan Recycled Water Distribution System and Storage

[325] HydroScience Engineers, Recycled Water Study for West Roseville Specific Plan Area, May 21, 2003, Table 3

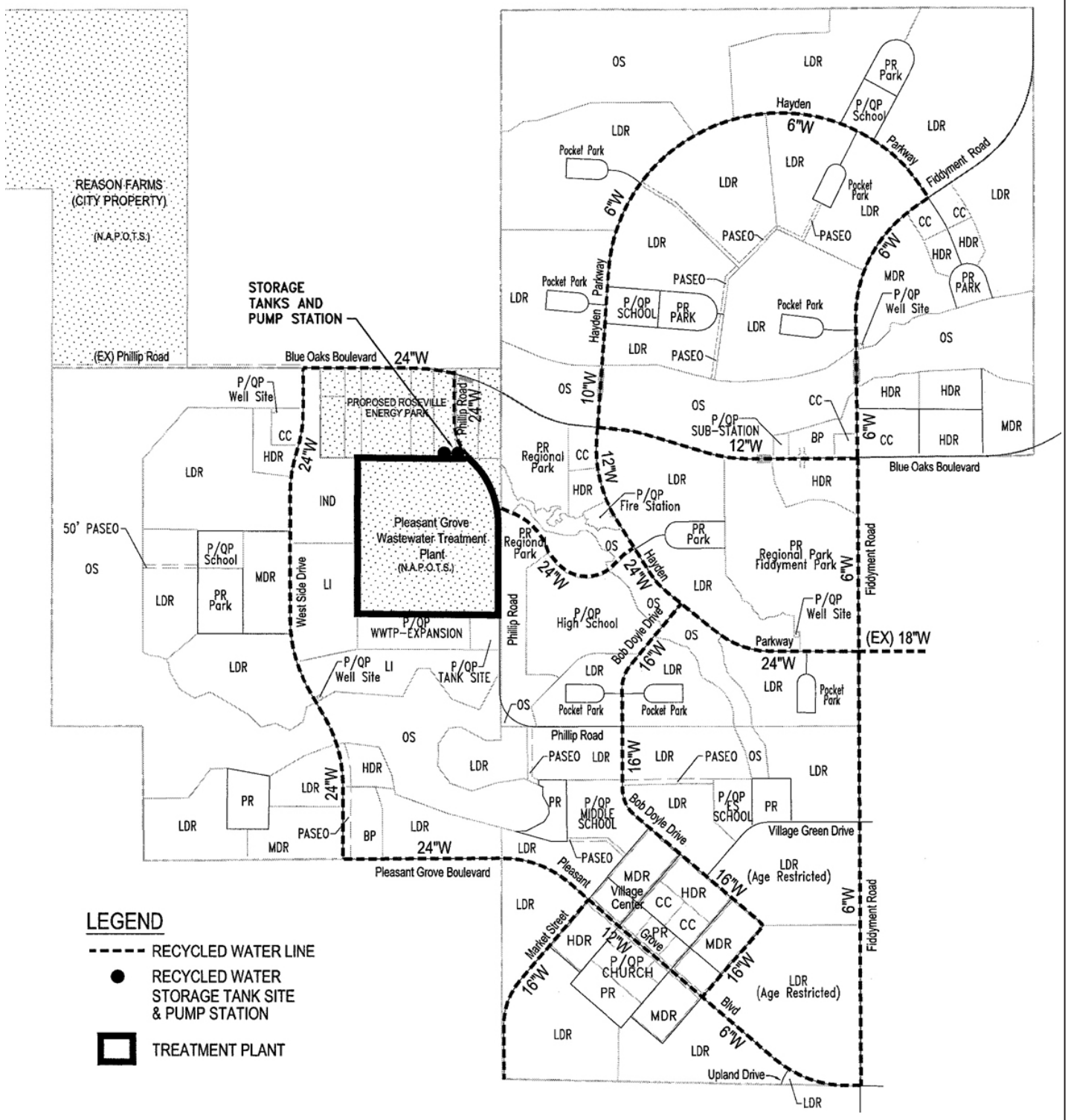


FIGURE **4.11-4**

West Roseville Specific Plan Recycled Water Distribution System and Storage Facility

Scale: 1" = 2000'

10659-00

***Source*:** West Roseville Specific Plan 2003 City of Roseville

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Facility). Although the specific locations of distribution pipelines in the Remainder Area have not been determined, it is anticipated they would be within roadway alignments. The recycled water pipelines that would be installed for Phase 4 of the WRSP would have capacity to supply the Remainder Areas.

West Roseville Specific Plan

The WRSP plans for recycled water use in irrigating parks, schools, publicly landscaped areas (including roadway corridors and medians), and landscaping associated with commercial, business professional, light industrial, industrial, and multi-family land uses. The use of recycled water offsets potable water demand and is an important component of the overall WRSP water supply. A backbone of dedicated nonpotable water lines ranging from 6 to 24 inches in diameter will be constructed within street rights of way to serve the WRSP. The water supply strategy for the WRSP includes recycled water from the PGWWTP for irrigating parks, golf courses, schools, publicly landscaped areas (including streetscapes), and landscaping associated with commercial, industrial, and multi-family land uses. The annual average recycled water demand for the WRSP is estimated to be 1.56 mgd (1,717 AF/year), and the peak day demand would be 3.91 mgd. As illustrated by the data provided in Table 4.11-10, there would be adequate recycled water supply to meet both average annual and peak day demand for each phase of the WRSP, as well as excess annual average and peak day supply for other City projects.

Table 4.11-10 WRSP/SOI Amendment Areas Recycled Water Supply Annual Average and Peak Day Demand Comparisons

Year	WRSP Phases	Total Supply from PGWWTP—Existing City Plus WRSP/SOI Amendment (mgd)	Supplement to Woodcreek Oaks Golf Course Recycled water Tank (mgd)	Supply Available to WRSP/SOI Amendment Areas (mgd)	WRSP/ SOI Demand (mgd)	System Losses (mgd)	Supply Available from PGWWTP for Other City Projects (mgd)
Average Day Conditions							
2005	1	6.2	0.4	5.75	0.50	0.01	5.24
2010	1,2	10.3	0.4	9.92	0.78	0.02	9.12
2015	1,2,3	11.7	0.4	11.27	1.35	0.03	9.90
2020	1,2,3,4	12.5	0.4	12.09	1.56	0.03	10.49
	WRSP Total	***12.5***	0.4	12.09	1.56	0.03	10.49
	Remainder Area Total				0.97		
2030	***SOI Amendment Total***	***15.0***	0.4	14.6	2.53	0.05	12.02
Peak Day Conditions							
2005	1	5.7	1.0	4.7	1.25	0.03	3.4
2010	1,2	9.5	1.0	8.5	1.96	0.04	6.5
2015	1,2,3	10.7	1.0	9.7	3.37	0.07	6.3
2020	1,2,3,4	11.5	1.0	10.5	3.91	0.08	6.5
	WRSP Total	11.5	1.0	10.5	3.91	0.08	6.5
	Remainder Area Total				2.43		
2030	***SOI Amendment Total***	13.8	1.0	12.8	6.34	0.13	6.33

SOURCE: HydroScience Engineers, *Recycled Water Study for West Roseville Specific Plan Area*, May 21, 2003, Tables 8 and 9

Results of the recycled water analysis indicate that 1.2 million gallons of recycled water storage would be needed to meet WRSP Area hourly peak flow demand.[326] Considering the constant supply of 1,008 gpm to the proposed energy facility, the tank would need to store 1.70 MG. The recycled water storage facility would be installed north of the PGWWTP (south of Blue Oaks Boulevard and west of Phillip Road). A backbone system of dedicated recycled water lines ("purple pipe") would be constructed throughout the WRSP Area. Figure 4.11-4 identifies the location of the recycled water storage tank and recycled water distribution system. Potential environmental effects that could occur as result of installation of the storage tank and distribution system improvements in the WRSP Area are addressed in Section 4.4 (Air Quality), Section 4.5 (Noise), Section 4.7 (Biological Resources), Section 4.8 (Hydrology and Water Quality), Section 4.12 (Cultural Resources), and Section 4.13 (Aesthetics and Visual Resources). Therefore, all other impacts of constructing the recycled water system in the WRSP Area are considered **less than significant**.

For a discussion of the potential health effects related to the use of recycled water in areas accessible to the public, refer to Impact 4.9-7 in Section 4.9 (Hazardous Materials and Public Safety).

Remainder Area

As discussed above, development of the Remainder Area could not occur until a Specific Plan was adopted and the portion planned for developed was annexed to the City. If the Remainder Area were developed at densities and intensities similar to those proposed in the WRSP, development of the Remainder Area would require recycled water and recycled water distribution infrastructure, as described for the WRSP, as part of the overall water supply strategy. The Remainder Area demand is reflected in the analysis of recycled water supply and demand for the SOI Amendment shown in Table 4.11-10. The results of the recycled water study indicate that there would be sufficient recycled water available for the development of the SOI Amendment (which includes the Remainder Area), and surplus recycled water would be available for other City projects.

Similar to the WRSP, a recycled water distribution system would need to be installed in the Remainder Area and connected to the WRSP Area system and storage tank. The analysis of recycled water storage, and distribution assumed the projected demand of the Remainder Area.[327] The hydraulic analysis for recycled water estimated that the additional storage demand for the Remainder Area would be approximately 1.92 MG. (The difference between the total storage needed for the SOI Amendment [3.14 MG] and the WRSP [1.22 MG]). Considering the constant supply of 1,008 gpm to the proposed energy

[326] HydroScience Engineers, Recycled Water Study for West Roseville Specific Plan Area, May 21, 2003, Table 10
[327] HydroScience Engineers, Recycled Water Study for West Roseville Specific Plan Area, May 21, 2003, pp. 33 to 34

facility, the tank would need to store 3.85 MG, an additional demand of 2.15 MG above the requirements of 1.7 MG. for the WRSP. As noted above, the storage tank and booster pump station proposed to be north of the PGWWTP and west of Phillip Road would be sized to include sufficient storage for the Remainder Area. Impacts related to recycled water storage and distribution are, therefore, considered **less than significant**.

Potential environmental effects that could occur as result of installation of the storage tank and distribution system improvements in the Remainder Area are addressed in Section 4.4 (Air Quality), Section 4.5 (Noise), Section 4.7 (Biological Resources), Section 4.12 (Hydrology and Water Quality), Section 4.8 (Cultural Resources), and Section 4.13 (Aesthetics and Visual Resources).

Mitigation Measures

None.

WASTEWATER

Information for this section was gathered from the following documents:

- *Roseville Regional Wastewater Treatment Service Area Master Plan* (May 1996)
- *Roseville Regional Wastewater Treatment Service Area Master Plan Draft EIR* (May 1996)
- *North Roseville Specific Plan Phase 3 DEIR* (May 2000)
- *Stoneridge Specific Plan EIR* (December 3, 1997)
- *Wastewater Evaluation of Urban Growth Areas (Technical Memorandum 3)—West Roseville Specific Plan* (March 26, 2003)
- *Technical Memorandum No. 3 RE: Wastewater Evaluation of Urban Growth Areas* (December 4, 2001)
- *Project Memorandum, Capacity and Regulatory Compliance Assessment, Carollo Engineers (August 28, 2003)*

All of the above listed documents are available for review at the City of Roseville Permit Center, 311 Vernon Street, Roseville, California. The *Technical Memorandum 3 Wastewater Evaluation of Urban Growth Areas* and the *Project Memorandum, Capacity and Regulatory Compliance Assessment, Carollo Engineers* are also included in Appendix R of this EIR, and sewer flow calculations (by manhole) are provided in Appendix I of this EIR. The analysis in this section is based on buildout of the Wastewater Master Plan Service Area.

4.11.8 Environmental Setting

The SOI Amendment Area, described in detail in Chapter 2 (Project Description), is undeveloped with the exception of several residences, including the Fiddyment Ranch complex and a dog kennel business, which use septic systems for wastewater disposal (refer to Figure 2-3 in Chapter 2 [Project Description]).

Wastewater Treatment

Wastewater from the City of Roseville is currently treated at the City-owned-and-operated Dry Creek Wastewater Treatment Plant (DCWWTP), formerly known as the Roseville Regional Wastewater Treatment Plant, which is located on Booth Road, along Dry Creek, in the southwest portion of the City. It is not anticipated that this plant would serve the SOI Amendment Area.

The DCWWTP provides tertiary-level wastewater treatment through the process of screening, grit removal, primary clarification, aeration, secondary clarification, filtration, chlorination, and dechlorination; in addition, the DCWWTP provides full nitration. The current average daily flow (ADWF) is 15 million gallons per day (mgd), of which approximately 8 mgd come from the City of Roseville.[328] The peak daily wet weather flow (PWWF) during the last 12 months was 22 mgd.[329] The plant can discharge up to 18 mgd ADWF and 45 mgd PWWF into Dry Creek under an existing National Pollutant Discharge Elimination System (NPDES) permit.[330]

A second plant, the PGWWTP, is under construction on the west side of Phillip Road (refer to Figure 2-3 in Chapter 2 [Project Description]). This plant will serve the northwest areas in the existing City of Roseville, the Stanford Ranch area of the South Placer Municipal Utility District (SPMUD), and the Sunset Industrial Area of Placer County. The PGWWTP is also anticipated to serve the SOI Amendment Area assuming the area is added to the Roseville Regional Wastewater Treatment Service Area.

The PGWWTP will provide tertiary-level treatment through the process of screening, grit removal, extended aeration, secondary clarification, filtration, chlorination, and dechlorination.[331] The plant will provide full nitrification and will produce recycled water that meets Title 22 regulations for full, unrestricted use.[332] Due to the current and proposed levels of treatment, stabilized nonhazardous

[328] Kelye McKinney, P.E., City of Roseville, Personal Correspondence to Kathy Pease, City of Roseville Planning Department, October 21, 2002
[329] Kelye McKinney, P.E., City of Roseville, Personal Correspondence, June 10, 2002
[330] EIP Associates, Foothill Business Park Annexation DEIR, June 2000, p. 4.8-20
[331] Montgomery Watson, City of Roseville: Roseville Regional Wastewater Treatment Service Area Master Plan, May 1996, p. ES-21
[332] Kelye McKinney, P.E., City of Roseville, Personal Correspondence, June 10, 2002

biosolids (sewage sludge) are anticipated at the PGWWTP. These solids would be dewatered and transported to the Western Regional Sanitary Landfill for disposal.[333]

The capacity of the PGWWTP is summarized in Table 4.11-11. The first phase of the PGWWTP is anticipated to be operational by Fall/Winter 2003.[334] Phase 1 would provide a capacity of 12 mgd ADWF and 30 mgd PWWF.[335] The plant is presently authorized to discharge that volume of treated effluent into Pleasant Grove Creek under NPDES Permit No. CA0084573, which was issued by the Central Valley Regional Water Quality Control Board on March 17, 2000.[336]

Table 4.11-11 Summary of PGWWTP Capacity

Criteria	ADWF Flows (mgd)
Capacity of First Phase of Construction	12
Current NPDES Permitted Capacity	12
Capacity needed to serve the Service Area considered in the Wastewater Master Plan EIR	20.7

SOURCE: Montgomery Watson Harza, *Technical Memorandum 3: RE: Wastewater Evaluation of Urban Growth Areas*, December 4, 2001, Page 3 of 11

When the PGWWTP begins operation, approximately 5 to 6 mgd would be redirected from the DCWWTP. This would reduce the available capacity at PGWWTP to 6 to 7 mgd ADWF in 2003.

The second phase of the PGWWTP is anticipated to be operational between 2010 and 2012.[337] The dates for construction of Phase 2 may be adjusted, as necessary, to meet the demands of new wastewater flows and changes in water quality regulations.[338] Phase 2 would increase plant capacity to 20.7 mgd ADWF, which is the anticipated demand for treatment at buildout of that portion of the Wastewater Treatment Service Area that flows to the PGWWTP.[339]

Regional wastewater treatment demands and capacity have been previously addressed in an environmental impact report entitled *Roseville Regional Wastewater Treatment Service Area Master Plan Draft Environmental Impact Report* (WWMP EIR), prepared by Environmental Science Associates in May 1996 and hereby incorporated by reference. (Throughout this document, Roseville Regional Wastewater

[333] Kelye McKinney, P.E., City of Roseville, Personal Correspondence to Kathy Pease, City of Roseville Planning Department, October 21, 2002

[334] Art O'Brien, City of Roseville, Personal Correspondence, August 28, 2003

[335] Kelye McKinney, P.E., City of Roseville, Personal Correspondence, June 10, 2002

[336] Kelye McKinney, P.E., City of Roseville, Personal Correspondence, June 10, 2002

[337] Kelye McKinney, P.E., City of Roseville, Personal Correspondence, June 10, 2002

[338] Montgomery Watson and ESA, City of Roseville: Roseville Regional Wastewater Treatment Service Area Master Plan Draft Environmental Impact Report, May 1996, p. 2-47

[339] Montgomery Watson and ESA, City of Roseville: Roseville Regional Wastewater Treatment Service Area Master Plan, May 1996, p. ES-22; and Montgomery Watson Harza, Technical Memorandum 3: RE: Wastewater Evaluation of Urban Growth Areas, December 4, 2001, p. 3 of 11

Treatment Service Area Master Plan EIR is also referred to as the Wastewater Master Plan EIR.) The Wastewater Master Plan EIR evaluated two scenarios at an equal level of detail – a 54.4 mgd scenario, which assumed flows from the City of Lincoln would be accepted into the service area, and a 45.6 mgd scenario that assumed flows from the City of Lincoln would not beaccepted into the service area. Under the 54.4 mgd scenario, 29.5 mgd of flow was considered for treatment at PGWWTP. Under the 45.6 mgd scenario, 20.7 mgd was considered for treatment at PGWWTP. The maximum discharge from buildout of the Wastewater Treatment Service Area and the SOI Amendment Area is 24.7 mgd. Therefore, the environmental impacts resulting from the PGWWTP treating up to 29.5 mgd flow has already been fully analyzed. However, increases of treatment capacity beyond 20.7 mgd ADWF under the current NPDES permit requirements (NPDES No. CA0084573) would require additional area for the express purpose of accommodating MM 6-2 in the WWMP EIR.[340]

Wastewater Master Plan Service Area

As noted above, a Regional Wastewater Treatment Service Area Master Plan (Wastewater Master Plan) was prepared by the City to address major wastewater treatment improvements that would serve buildout of the service area based on planning documents adopted by 1996. Only the northeast portion of the SOI Amendment Area is currently included in the service area, which is illustrated by Figure 4.11-5 (West Roseville Specific Plan Existing Wastewater Treatment Plant Service Area). This area was previously called Phase 1 of the Villages at Blue Oaks (VBO) and is shown as Area 21 on Figure 3, Roseville Drainage Sub-Basins, in Section 1 of the Roseville Regional Wastewater Treatment Service Area Master Plan. The WWMP EIR considered that 1.1 mgd of the 20.7 mgd were generated from the VBO.

Wastewater Conveyance Infrastructure

As part of the Pleasant Grove and Kaseberg Sewer Project, the City constructed a 78-inch trunk sewer line to convey regional flows to the PGWWTP. This pipe traverses a portion of the WRSP Area that was previously known as the Village at Blue Oaks. It was assumed in the design of the 78-inch pipe that the Village at Blue Oaks would connect to the trunk line. Connections to this pipe could be used to convey wastewater flows from that portion of the SOI Amendment Area that was included in the VBO area in the Roseville Regional Wastewater Master Plan Service Area.

[340] *Project Memorandum, Capacity and Regulatory Compliance Assessment, Carollo Engineers (August 28, 2003*

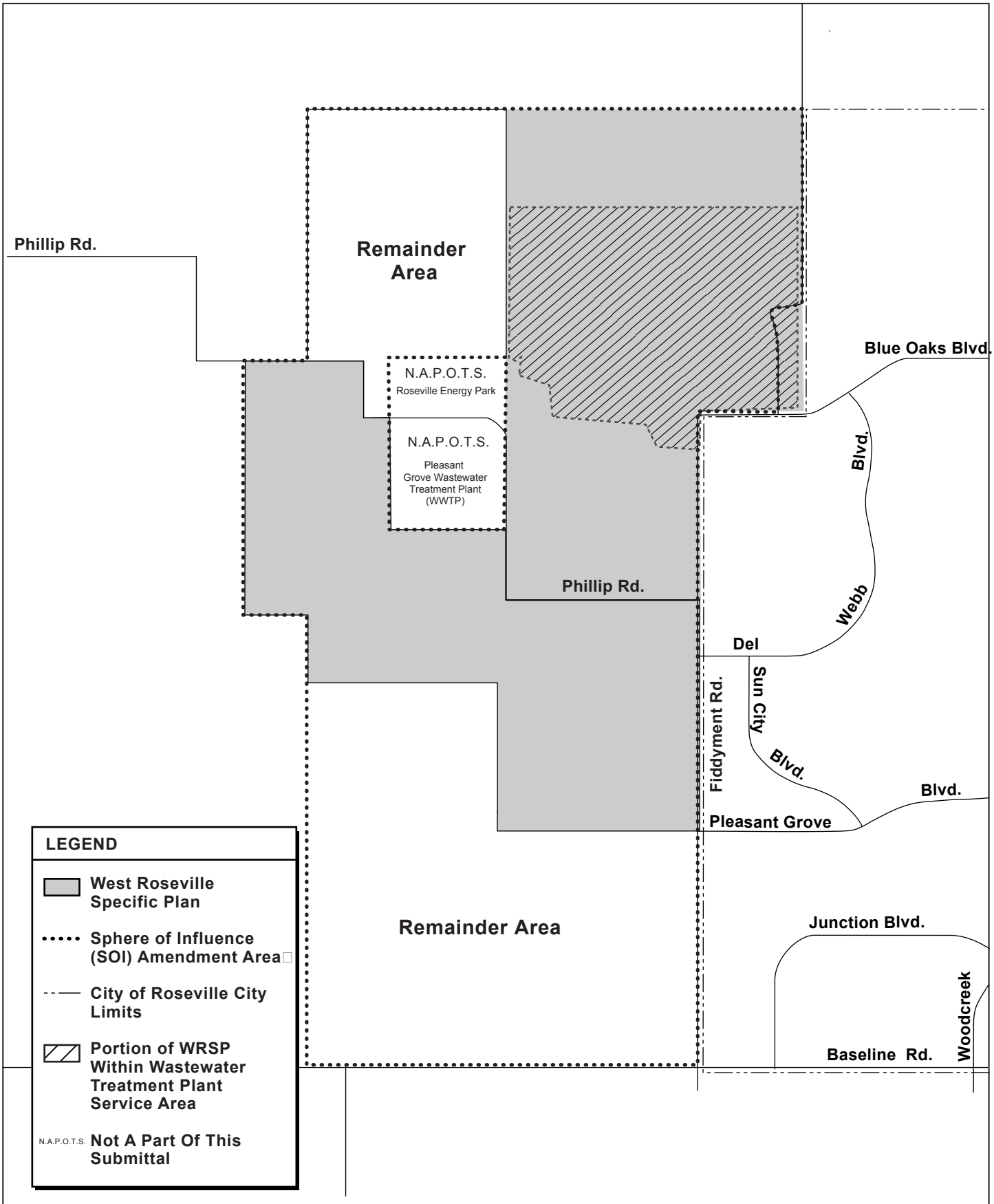


FIGURE **4.11-5**

Existing Wastewater Treatment Plant Service Area

Not to Scale

10659-00

***Source*:** Montgomery, Watson, Harza, Technical Memorandum City of Roseville

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4.11.9 Regulatory Setting

Federal and State

The discharge of treated wastewater from the PGWWTP is subject to the federal and State regulatory requirements summarized below.

NPDES Permits

The National Pollutant Discharge Elimination System (NPDES) permit system was established in the Clean Water Act to regulate municipal and industrial discharges to surface waters of the U.S. The discharge of wastewater to surface waters is prohibited unless an NPDES permit has been issued to allow that discharge. Each NPDES permit includes the following provisions: effluent and receiving water limits of allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, and self-monitoring activities; and other regulatory requirements.

The wastewater discharge from the PGWWTP to Pleasant Grove Creek is regulated under a NPDES permit issued by the RWQCB. To obtain the permit, a Report of Waste Discharge (RWD) was prepared. The RWD includes information about the design and operation of the treatment plant (including the average and dry weather maximum flows for the plant), influent wastewater characteristics, and removal rates for specific water quality parameters. The NPDES permit and the Waste Discharge Requirements (WDR) are used to identify discharge prohibitions, effluent limitations, and monitoring and reporting requirements.

The discharge prohibitions and limitations in the permit are designed to ensure the maintenance of public health and safety, protection of receiving water resources, and safeguarding of designated beneficial uses of water bodies. Discharge limitations in the PGWWTP permit define allowable effluent concentrations for flow, biochemical oxygen demand (BOD), total suspended matter, residual chlorine, settleable matter, total coliform, oil and grease, and pH. Limitations also encompass mineralization and toxicity to aquatic life. The provisions provide stipulations for the disposal of solid materials, and limitations on impacts to receiving waters. The permit also specifies the sampling, monitoring, and reporting of requirements for compliance with waste discharge regulations. The monitoring program entails sampling influent, effluent, and the receiving water. The provisions of the NPDES permit and the WDR are enforceable through an order issued by the RWQCB or civil action.

Title 40 of the Code of Federal Regulations (CFR), Part 503 and Part 258, serves as the basis for the RWQCB requirements for biosolids disposal by land application or in a landfill. Title 27 of the California Code of Regulations and standards established by the RWQCB in a General Order for the disposal of biosolids regulate the disposal of biosolids.

Title 40 of the CFR, Parts 405 through 471, contains the Federal Categorical Pretreatment Standards for the pretreatment of industrial wastes discharged to publicly owned treatment works such as the PGWWTP.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act[341] is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State must adopt water quality policies, plans, and objectives that will provide protection to the State's waters for the use and enjoyment of the people of California. In California, the State Water Resources Control Board (SWRCB) has authority and responsibility for establishing policy for water quality control issues for the State. Regional authority for planning, permitting, and enforcement is delegated to the nine Regional Water Quality Control Boards (RWQCB). The Porter-Cologne Water Quality Control Act authorizes the SWRCB and RWQCB to issue NPDES permits containing waste discharge requirements, and to enforce these permits. SWRCB and RWQCB regulations implementing the Porter-Cologne Water Quality Control Act are included in Title 27 of the California Code of Regulations.

Local

City of Roseville General Plan

The City of Roseville General Plan contains goals and policies that are designed to ensure that residents have adequate wastewater service. These policies can be found in Appendix C.

City of Roseville Improvement Standards

Section 9 of the City's Improvement Standards (Sanitary Sewer Design) provides criteria for design of sewer systems. Compliance with these standards would reduce impacts related to wastewater conveyance by ensuring that wastewater collection and conveyance facilities are properly sized to convey the flows from development associated with the project.

[341] California Water Code Section 13000 *et seq.*

City of Roseville Municipal Code

Section 14 of the City's Municipal Code contains regulations associated with sewer use, sewer rates and charges, and industrial wastewater. Chapter 14.26 prohibits discharge to a sanitary sewer of any pollutant or wastewater that would interfere with the operation or performance of the City's wastewater collection or treatment facilities.

4.11.10 Impacts and Mitigation Measures

Methods of Analysis

For wastewater treatment, the demand for treatment was calculated for the WRSP Area and Remainder Area and compared to the capacity of the PGWWTP (see Table 4.11-12). The rates indicated by Table 4.11-12 have been applied to the proposed land uses in the WRSP Are and assumed for the Remainder Area to estimate the quantity of wastewater to be treated at the PGWWTP.[342],[343],[344] To determine the peak wet weather flow for treatment capacity, the Average Dry Weather flow (ADWF) is multiplied by the peaking factor of 2.5.[345]

Because the Villages at Blue Oaks portion of the SOI Amendment Area was included in the total flows calculated for the Wastewater Treatment Service Area, the net increase in flows to the PGWWTP for the project is less than the flows generated by the entire SOI Amendment Area. The portion of the SOI Amendment Area currently within the Wastewater Treatment Service Area boundary (VBO) would generate 1.1 mgd ADWF. This amount is subtracted from total WRSP Area flows because it was already anticipated in the capacity of the PGWWTP considered in the Wastewater Master Plan EIR.

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area would do any of the following:

- Result in or require the construction of or expansion of wastewater collection facilities that would create significant environmental effects

[342] Montgomery Watson Harza, Technical Memorandum 3, RE: Wastewater Evaluation of Urban Growth Areas, December 4, 2001, p. 3 of 11
[343] EIP Associates, Stoneridge Specific Plan EIR, December 3, 1997, p. 4.12-17
[344] EIP Associates, North Roseville Specific Plan Phase 3 DEIR, May 2000, p. 4,8-20
[345] Montgomery Watson Harza, Technical Memorandum 3, RE: Wastewater Evaluation of Urban Growth Areas, December 4, 2001, p. 3 of 11

Table 4.11-12 Estimated Wastewater to be Treated at the Pleasant Grove Wastewater Treatment Plant (ADWF)[8]

		Total for WRSP Area (gpd)[4]	Total for Remainder Area (gpd)[4]	Total for SOI Area (gpd)[4]
Park and Recreation	1,040 gpad[2, 5]	281,320	203,528	484,848
Public/ Quasi-Public	1,040 gpad[2]	157,456	67,600	225,056
Low Density Residential	260 gallons per day per equivalent dwelling unit[2]	1,258,920	1,376,960	2,635,880
Low Density Residential (Active Adult)	260 gallons per day per equivalent dwelling unit[2]	184,600		184,600
Medium Density Residential	260 gallons per day per equivalent dwelling unit[2]	276,640	161,200	437,840
High-Density Residential	260 gallons per day per equivalent dwelling unit[2]	461,240	386,620	847,860
Community Commercial	1,040 gpad[2]	33,904	70,304	104,208
Commercial Mixed Use	260 gallons per day per equivalent dwelling unit[2] (residential) & 1,040 gpad[7] (commercial)	23,525		23,525
Business Professional	1,040 gpad[7]	20,384	51,480	71,864
Light Industrial	1,040 gpad[2]	77,168		77,168
Industrial	1,560 gpad[2]	53,508		53,508
Total		***2,828,665***	***2,317,692***	***5,146,357***

NOTES:

1. Business Professional and Light Industrial are considered combined within the 49.5 acres
2. Montgomery, Watson, Harza, *Technical Memorandum 3, Wastewater Evaluation of Urban Growth Areas*, December 4, 2001, Page 3 of 11
3. DU = dwelling units
4. gpd = gallons per day
5. gpad = gallons per acre per day
6. Land uses, acres, and dwelling units provided by Signature Properties, Westpark Associates, 2002
7. EIP Associates, *Stoneridge Specific Plan EIR*, December 3, 1997, Page 4.12-17.
8. ADWF = average dry weather flow
9. The following "worse case scenario" assumptions were made in the calculation of the wastewater flows from the Commercial Mixed-Use area: Assumed all high-density residential for the 40 dwelling units at 22.4 DU/acre = 1.78 acres for residential. Commercial uses were assumed for the remaining 12.62.The 40 DU = 10,400 gpd The 12.62 acres of commercial = 13,125 gpd

- Result in or require the construction of or expansion of wastewater treatment facilities that would create significant environmental effects
- Result in increase of wastewater discharge regulated by the applicable Regional Water Quality Control Board (RWCQB)
- Be served by a wastewater treatment provider that has inadequate capacity to serve the project in addition to serving its existing commitments

Impacts

IMPACT 4.11-6:	CONSTRUCTION OR EXPANSION OF WASTEWATER COLLECTION FACILITIES.	
Applicable Policies and Regulations:	City of Roseville Improvement Standards	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

West Roseville Specific Plan

Currently, there is no wastewater collection infrastructure to collect and convey wastewater to the PGWWTP within the WRSP Area, with the exception of an existing City-owned 78-inch trunk sewer that is parallel to and south of Pleasant Grove Creek. Therefore, development of the WRSP would require installation of a wastewater collection and conveyance system. Wastewater flows from the WRSP Area would be directed to the PGWWTP by a network of pipes installed within street rights of way or easements. Sewer collection pipes would range in size from 8-inches to 33-inches. A portion of the WRSP Area would connect to an existing City-owned 78-inch diameter pipe just north of the intersection of Blue Oaks Boulevard at Fiddyment Road south of Pleasant Grove Creek. As a result of site topography, the sanitary sewer system would not require lift stations. A siphon would be required near the Pleasant Grove Creek crossing by Phillip Road in order to allow sewer lines to gain the necessary depth to cross the creek. The siphon will consist of a deeper pipe connected by underground structures with surface manholes. All sewer improvements would be consistent with the Regional Wastewater Master Plan. The wastewater collection infrastructure would be installed over time to coincide with development entitlements on the WRSP site and would be designed to accommodate buildout of the WRSP. Compliance with the City of Roseville improvement standards would ensure that the wastewater collection and conveyance facilities would be adequate to serve the proposed project.

The ADWF for conveyance systems is determined by the unit generation rates for transmission presented in the WWMP. To determine the peak wet weather flow for conveyance in the collection system, the ADWF is multiplied by a peaking factor of 2.3. The actual pipe sizes that would convey the peak wet weather flow were identified in the *Draft Preliminary Investigation of Wastewater System, West Roseville Specific Plan* (March 26, 2003), by Morton and Pitalo, Inc

Because the PGWWTP is surrounded by the WRSP Area on three sides, most new wastewater conveyance infrastructure needed to serve the WRSP Area would be constructed within the WRSP Area itself. Outside of the WRSP Area, one manhole would be constructed in Blue Oaks Boulevard and another would be constructed in Phillip Road. A 24-inch pipe would be installed from the future Phillip Road west along the northern boundary of the PGWWTP. All wastewater from the WRSP Area would be delivered to the influent junction structure (IJS) at the northeast corner of the PGWWTP site. Figure 4.11-6 (West Roseville Specific Plan Wastewater Collection System) illustrates the location of wastewater (or sewer) lines, the direction of flow, and the PGWWTP site.

Wastewater flows from the WRSP Area would be directed to PGWWTP by pipes installed within street rights of way or easements. Sewer collection pipes ranging in size from 18-inches to 42-inches would be installed as part of the WRSP. As shown in Appendix I, these pipes have been sized to accommodate the anticipated flows from both the WRSP Area and the Remainder Area.[346] Manholes would be installed as necessary along the alignments. Due to the topography, the system can rely on gravity flows and would not require lift stations. To gain the necessary depth of the sewer lines to cross Pleasant Grove Creek, a siphon would be required near the creek crossing by Phillip Road. The siphon would consist of a deeper pipe connected by underground structures with surface manholes.

The existing 78-inch pipeline was designed to accommodate flows from a portion of the WRSP previously proposed for a development known as the Villages at Blue Oaks. That development was assumed to generate transmission flows of 3.2 mgd, which would be 2.7 times greater than the flows anticipated from this portion of the proposed WRSP. Therefore, the connection of this portion of the WRSP Area, which is projected to produce a transmission flow of 1.19 mgd to the 78-inch trunk sewer, is not anticipated to result in an adverse effect on pipe capacity.[347] To date, no other local connections to the 78-inch pipe have been allowed.[348]

Portions of the wastewater collection system installed during development of the WRSP Area would be oversized to accommodate wastewater flow from the Remainder Area. In addition, three manholes would be installed as part of the wastewater infrastructure for the WRSP Area that would serve as future connection points for the Remainder Area. These manholes would be located at the northwest boundary at Blue Oaks Boulevard, at the southern boundary in Pleasant Grove Boulevard, and at the western

[346] Morton and Pitalo, Inc., Draft Preliminary Investigation of Wastewater System, West Roseville Specific Plan, September 3, 2002, Sewer Flow Calculations, Fiddyment Ranch, Sewer Flow Calculations, Westpark and Sewer Flow Calculations, Westpark—No MOU

[347] Morton and Pitalo, Inc., Draft Preliminary Investigation of Wastewater System, West Roseville Specific Plan, as revised January 31, 2003, p. 1

[348] Art O'Brien, City of Roseville, Personal Communication, February 4, 2003

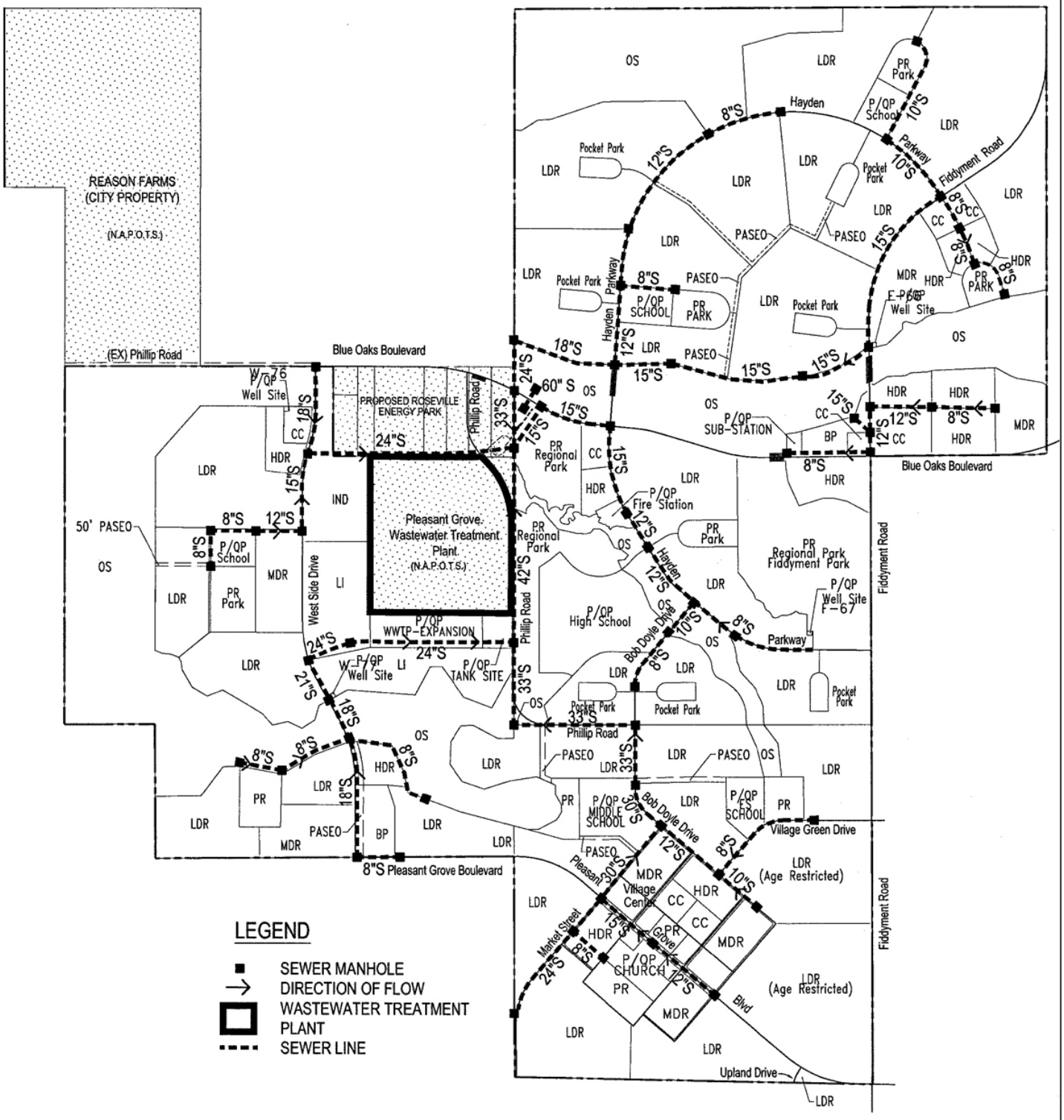


FIGURE **4.11-6**

West Roseville Specific Plan Wastewater Collecton System

Scale: 1" = 2000'

10659-00

***Source*:** West Roseville Specific Plan 2003 City of Roseville

EIP ASSOCIATES

boundary of the southernmost portion of the WRSP Area (refer to Figure 4.11-6). Connection of the WRSP Area's wastewater collection system to the PGWWTP is designed to occur at the influent junction structure (IJS) built as part of the PGWWTP. The IJS is located at the northeast corner of the PGWWTP property (refer to Figure 4.11-6). Two 36-inch diameter connection points (north invert and south invert) were provided at the influent junction structure for future trunk lines. As shown on Figure 4.11-6, the majority of flows from the WRSP Area would be routed to these connection points. If the determination is made that the existing IJS structure would not be able to accommodate the flows generated by the WRSP Area, additional junction structure(s) would be required. The installation of this structure(s) could take place at the time of construction of the WRSP wastewater conveyance pipes.

As previously stated, the wastewater collection system would be constructed within the WRSP Area, with the exception of manholes in Blue Oaks Boulevard and Phillip Road and a 24-inch pipe aligned with the north boundary of the PGWWTP. The manholes would be installed within the existing right of way of Blue Oaks Boulevard and Phillip Road and, therefore, would not cause impacts to environmental resources such as biological and cultural resources that were not previously considered in the environmental documentation for the construction of Blue Oaks Boulevard. The manhole would be installed during the construction of the Blue Oaks extension, as part of the WRSP.

In summary, the proposed wastewater collection and conveyance system, and the existing conveyance system to which the WRSP Area would connect, would be sized to serve both the anticipated wastewater flows generated by the WRSP Area and the Remainder Area. Also, these facilities will be constructed in public roads and right-of ways and the impacts of this construction activity are analyzed elsewhere in this EIR. Therefore, the impacts of constructing the WRSP wastewater collection system would be **less than significant**.

Remainder Area

Because there are no specific land use plans for the Remainder Area, the line sizes and layout of the wastewater collection system are not currently known. The design of the system would comply with the City of Roseville Environmental Utility Department requirements. These requirements are found in Section 9, Sanitary Sewer Design, of the City of Roseville Improvement Standards, and would ensure that applicants in the Remainder Area demonstrate that the wastewater collection is adequate to accommodate flows generated by development.

The Remainder Area is separated from the PGWWTP by the City's property and a portion of the WRSP to the north and south. As previously discussed, infrastructure installed as part of the WRSP would be

oversized to convey wastewater flows from the Remainder Area to the PGWWTP. There would be no other off-site impacts due to construction of the wastewater infrastructure to serve the Remainder Area.

Development in the Remainder Area must comply with City standards for wastewater conveyance and impacts from construction of any necessary improvements will be analyzed in the planning and environmental review for the Remainder Area. Also, the WRSP conveyance system is being designed to accommodate flows from the Remainder Area. As a result, the impact of constructing the wastewater collection system for the Remainder Area would be **less than significant**.

IMPACT 4.11-7:	**CONSTRUCTION OR EXPANSION OF WASTEWATER TREATMENT FACILITIES.**	
Applicable Policies and Regulations:	Chapter 14.26 of Municipal Code	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.11-5 (Treatment plant capacity)	MM 4.11-6 (Treatment plant expansion policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

As shown on Table 4.11-13, the SOI Amendment Area is projected to generate treatment flows of 5.1 mgd ADWF. Projected flows to the PGWWTP at buildout of the Wastewater Treatment Service Area considered in the WWMP EIR are 20.7 mgd ADWF.[349] A portion of the flows from the WRSP Area (1.1 mgd ADWF from the VBO) was included in the Wastewater Master Plan EIR. Therefore, the SOI Amendment Area would generate a net increase of 4.0 mgd ADWF of wastewater over the amount planned in the Wastewater Master Plan and considered in the Wastewater Master Plan EIR. The total capacity needed to treat wastewater flows, including both the WRSP Area and Remainder Area and other flows planned to be treated at the PGWWTP, would be 24.7 mgd ADWF (refer to Table 4.11-13).

Table 4.11-13 Net Projected Flows to be Treated at PGWWTP For SOI Amendment Area

	Projected Flows (mgd)
Projected flows from SOI Amendment Area	5.1
Flows from portion of SOI Amendment Area within current Roseville Regional Wastewater Treatment Service Area	–1.1
Net increase of flows from SOI Amendment Area	4.0
Projected flows to PGWWTP at buildout of current Roseville Regional Wastewater Treatment Service Area	20.7
Total capacity needed to treat wastewater flows from buildout of the current Master Plan Service Area and the SOI Amendment Area	24.7

[349] Montgomery Watson and ESA, City of Roseville: Roseville Regional Wastewater Treatment Service Area Master Plan, May 1996, p. ES-22; and Montgomery Watson Harza, Technical Memorandum 3: RE: Wastewater Evaluation of Urban Growth Areas, December 4, 2001, p. 3 of 11

West Roseville Specific Plan

As shown on Table 4.11-14, the WRSP Area is projected to generate 2.8 mgd ADWF of wastewater to be treated by the PGWWTP. The PGWWTP is currently planned to treat up to 20.7 mgd ADWF, based on demand for wastewater treatment from development in the existing Wastewater Treatment Service Area through buildout (assumed in 2020) and considered in the Wastewater Master Plan EIR. One portion of the WRSP Area (VBO) that is within the existing boundary of the Wastewater Treatment Service Area was included in the Service Area in the WWMP EIR. That portion of the WRSP Area, at one time proposed as the Villages of Blue Oaks, was estimated to generate 1.1 mgd ADWF of wastewater that would be treated by the PGWWTP. Therefore, of the 2.8 mgd ADWF that would be generated by the WRSP Area, 1.1 mgd could be accommodated by the PGWWTP as currently planned and considered in the Wastewater Master Plan EIR. The PGWWTP was not anticipated to treat the remaining 1.7 mgd ADWF of WRSP Area wastewater and construction of additional treatment facilities is required. This is considered a significant impact**.**

Table 4.11-14 Net Projected Flows to be Treated at PGWWTP for WRSP (ADWF)

	Projected Flows (mgd)
Projected flows from WRSP	2.8
Flows from portion of WRSP within current Roseville Regional Wastewater Treatment Service Area	–1.1
Net increase of flows from WRSP	1.7
Projected flows to PGWWTP at buildout of current Roseville Regional Wastewater Treatment Service Area	20.7
Total capacity needed to treat wastewater flows from buildout of the current Master Plan Service Area and the WRSP	22.4

As required by MM 4.11-5, wastewater treatment plant capacity must be expanded prior to developing residences and nonresidential uses that would cause total wastewater flows from the WRSP Area to exceed 1.1 mgd. The PGWWTP must be expanded such that it could treat 22.4 mgd, which is the amount needed to treat flows from the current Wastewater Treatment Service Area at buildout, plus the 1.7 mgd WRSP Area flows not assumed in the current Wastewater Master Plan. Increasing wastewater treatment capacity of the PGWWTP to accommodate the WRSP Area will require expansion of the treatment facilities. The expansion is proposed to occur on a 15- to 20-acre parcel located immediately adjacent to and south of the PGWWTP site. Because the plant would be expanded (rather than having a new plant constructed) it can be assumed that the operational impacts would be similar to those anticipated for the 20.7 mgd of treatment capacity previously addressed in the EIR for the PGWWTP. With expansion of the PGWWTP, as required by MM 4.11-5, this impact would be considered **less than significant**.

Remainder Area

Flows from the Remainder Area are also proposed to be treated at the PGWWTP. The Remainder Area is projected to generate 2.3 mgd ADWF of wastewater to be treated (see Table 4.11-12). No portion of the Remainder Area is within the Wastewater Treatment Service Area considered in the WWMP EIR; therefore, the PGWWTP would need to be expanded to accept flows from development in the Remainder Area. This is considered a significant impact**.**

MM 4.11-6 requires that Specific Plans and/or development plans in the Remainder Area demonstrate that the PGWWTP is able to accommodate the flows from the proposed development. Because the Remainder Area would be unlikely to develop without the WRSP Area, the total amount of wastewater that would need to be treated at the plant would be 24.7 mgd, which is the total capacity needed to treat wastewater flows from buildout of the Wastewater Treatment Service Area and the SOI Amendment Area. An expansion beyond 20.7 mgd would require additional land.

The expansion is anticipated to occur on 15 to 20 acres of a property south of, and contiguous with, the PGWWTP site in the WRSP Area. It would be designated Public/Quasi-Public uses (refer to Figure 2-3 in Section 2, [Project Description]) in anticipation of the need to expand the footprint of the PGWWTP. Additional modules of the PGWWTP could be constructed in this area in order to provide sufficient capacity to treat the wastewater flows in excess of the 20.7 mgd that can be accommodated within the existing PGWWTP site. As previously mentioned, impacts due to expansion of the PGWWTP are evaluated in the *Regional Roseville Wastewater Treatment Service Area Master Plan EIR*.

Expansion of the PGWWTP is expected to use the same type of wastewater treatment facilities and process during the operation of the plant and is assumed to use the same type of construction methods due to the similar topography of the two sites and the modular nature of the plant.

With implementation of MM 4.11-6, the increased demand for wastewater treatment would be a **less-than-significant** impact because treatment capacity would have to be demonstrated before issuance of development entitlements.

Environmental Effects of Expanding the PGWWTP Pursuant to MM 4.11-5

The Roseville Regional Wastewater Treatment Service Area Master Plan EIR (State Clearinghouse No. 93092079, dated May 1996) hereby incorporated by reference, determined that the following impacts from construction and operation of the PGWWTP may not be reduced to less-than-significant levels after application of recommended mitigation and would, therefore, remain significant:

- Loss of vernal pools/seasonal wetlands, and impacts to vernal pool special status species

- Loss of oak trees along Pleasant Grove Creek from effluent discharge
- Loss of raptor habitat
- Odor and noise emissions at PGWWTP
- Increased criteria air pollutant emissions due to subsequent development

With the exception of the loss of oak trees, these impacts would occur if the PGWWTP is expanded onto the 20-acre parcel to the south of the plant.

Construction impacts would depend on whether the improvements needed to increase plant capacity could occur entirely within the existing footprint of the plant. If all the necessary changes were to occur internally there would be little disturbance to nearby residences and wildlife that are often associated with construction activities. If construction extended beyond the current plant footprint, temporary impacts could include noise, dust, emissions from construction vehicles, increased traffic congestion due to construction vehicles, potential disruption of utility lines, erosion, water quality degradation, disturbance to nesting raptors, and disturbance of unknown subsurface cultural resources (if grading or excavation were to occur). As evaluated in the Wastewater Master Plan EIR, the construction impacts of the expansion necessary to support the WRSP would be temporary and would be less than significant after mitigation, assuming that fewer than 10 acres are graded on a single day (to avoid exceeding air quality thresholds).

Expanding the PGWWTP would also result in operational impacts. Depending on the extent to which the plant's footprint changed, operational impacts would include contribution to downstream flooding due to increased stormwater runoff, increased urban contaminants in runoff, degradation of water quality in Pleasant Grove Creek, raw wastewater mingling with floodwaters, odor, noise from odor control fans, ingestion of recycled water by the public, contamination of groundwater and domestic water sources, increased mosquito populations, exposure to toxic air contaminants, increased sludge needing disposal at the landfill, and alteration of visual character. However, the Roseville Regional Wastewater Treatment Service Area Master Plan Environmental Impact Report found that these impacts would be less than significant, or could be reduced to less-than-significant levels, with mitigation identified in that EIR.

There are two impacts associated with proposed project that could substantially increase the severity of impacts identified in the Wastewater Master Plan EIR—disposal of sludge at the Western Regional Sanitary Landfill (WRSL) and degradation of water quality in Pleasant Grove Creek due to increased discharge from the PGWWTP. This EIR analyzes the effects of disposing additional sludge at the WRSL as part of the total waste conveyed to the landfill (refer to Impact 4.11-9). Degradation of water quality is discussed in Impact 4.11-8, below.

The light industrial and industrial land uses proposed within the WRSP could produce wastewater flows that could affect water quality entering the PGWWTP. The City of Roseville Municipal Code, Industrial Waste Section (Chapter 14.26) contains the regulations for discharge of industrial wastewater into the municipal sewer system. Federal standards prevail if they are more stringent than those of the City. Compliance with these regulations would reduce the risk that wastewater flows from the WRSP Area also would harm the PGWWTP, cause the plant to operate less efficiently, and/or cause a violation of the NPDES permit. Considering the regulations and requirements for industrial wastewater, industrial wastewater flow into the PGWWTP would be a **less-than-significant impact.**

IMPACT 4.11-8:	**INCREASED WASTEWATER DISCHARGE REGULATED BY THE RWQCB.**	
Applicable Policies and Regulations:	NPDES Permit	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	MM 4.11-5 (Treatment Plant Capacity)	MM 4.11-6 (Treatment Plant Expansion Policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

West Roseville Specific Plan/Remainder Area

Carollo Engineers[350] has analyzed the environmental effects of an increased discharge at the PGWWTP. In this analysis, it was concluded that the water quality of the effluent would not be any less than the quality considered in the Wastewater Master Plan EIR. The Wastewater Master Plan EIR evaluated two scenarios at an equal level of detail: a 54.4 mgd scenario, that assumed flows from the City of Lincoln would be accepted at PGWWTP, and a 45.6 mgd scenario, that assumed flows from the City of Lincoln would not be sent to the PGWWTP. Under the 54.4 mgd scenario, 29.5 mgd of flow was considered for treatment at PGWWTP and discharge into Pleasant Grove Creek and 24.9 mgd was considered for treatment at DCWWTP and discharge into Dry Creek. Because the City of Lincoln chose not to participate in the Wastewater Master Plan, the 45.6 mgd scenario was approved by the City of Roseville's City Council. Therefore, the Wastewater Master Plan EIR considered wastewater discharge of up to 29.5 mgd from the PGWWTP into Pleasant Grove Creek. Since the maximum discharge from buildout of the Wastewater Treatment Service Area and the SOI Amendment Area is 24.7 mgd, the water quality of the increased discharge would not be any different than that considered in the Wastewater Master Plan EIR. Compliance with a NPDES permit would reduce impacts associated with an increased demand for

discharge of the treated effluent from the PGWWTP by ensuring that water quality standards are met. The proposed expansion(s) of the PGWWTP would require modifications to the plant's NPDES permit. However, compliance with the modified NPDES permit would reduce water quality impacts associated with increased effluence discharges to a less-than-significant level. Chapter 14.26 prohibits discharge to a sanitary sewer of any pollutant or wastewater that would interfere with the operation or performance of the City's wastewater collection or treatment facilities.

Compliance with these standards would reduce impacts related to wastewater conveyance by ensuring that wastewater collection and conveyance facilities are properly sized to convey the flows from development associated with the project. Further, since the mitigation measures in the Wastewater Master Plan EIR will be implemented, as required by MM 4.11-5 and MM 4.11-6, the environmental effects of increased discharge are considered a **less-than-significant** impact.

Mitigation Measures

MM 4.11-5 *Treatment plant capacity (Impact 4.11-7 - WRSP)*

Prior to obtaining building permits for development that would cause total wastewater flows from the WRSP Area to exceed 1.1 mgd, the applicants shall demonstrate that the PGWWTP will be expanded to 22.4 mgd. This includes obtaining all necessary permits to discharge the treated flow. The applicant shall also demonstrate that the timing of the plant expansion will be adequate to serve the WRSP Area without impeding other planned development assumed in the Wastewater Master Plan. Further, the applicants shall implement all relevant mitigation measures identified in the Wastewater Master Plan EIR. A list of mitigation measures applicable to this project area found in Appendix V of this EIR.

MM 4.11-6 *Treatment plant expansion policies (Impact 4.11-7 - Remainder Area)*

Any proposal for development in the Remainder Area shall require that adequate treatment capacity at the PGWWTP be demonstrated and evaluated in an environmental document that tiers from this EIR in order to provide a project-level analysis. The environmental document shall be the responsibility of the applicant. Permits to discharge the treated flows shall also be obtained prior to the granting of any occupancy within the Remainder Area. Further, all relevant mitigation measures identified in the Wastewater Master Plan EIR shall be implemented. A list of mitigation measures applicable to this project area found in Appendix V of this EIR.

[350] *Project Memorandum, Capacity and Regulatory Compliance Assessment, Carollo Engineers (August 28, 2003)*

SOLID WASTE

4.11.11 Environmental Setting

Solid waste generated in the City of Roseville is collected and hauled by the City to the Western Regional Sanitary Landfill (WRSL) located on 320 acres at the southwest corner of Athens Road and Fiddyment Road, approximately one mile north of the project site. The landfill is owned by the Western Placer Waste Management Authority (WPWMA), which is comprised of the Cities of Roseville, Rocklin, and Lincoln, and Placer County. Madera Disposal, a private firm, operates the landfill under contract to the Authority. The City of Roseville has entered into a joint powers agreement (JPA) with these other agencies for solid waste management and operates under the County's Solid Waste Management Plan. The City entered into a Flow Control Agreement with the WPWMA in 1992, which requires that all waste generated within the City limits be delivered to the Materials Recovery Facility (MRF) for sorting and disposal at the landfill. Construction and demolition debris, however, can be sent outside the County for recycling or disposal. Collection of solid waste within the City is operated and managed by the City's Environmental Utilities Department. Private firms normally handle temporary refuse collection and disposal such as for construction and demolition.

According to the Source Reduction and Recycling Element (SRRE) of the City's General Plan, the WRSL is a Class III nonhazardous landfill. WPWMA expanded the permitted capacity of the landfill to 36,350,000 cubic yards in January 2003.[351] The landfill has a remaining capacity of 14,011,000 tons, which is projected to be exhausted in 2036.[352] The landfill is permitted for a maximum daily tonnage intake of 1,900 tons per day.[353]

According to the Environmental Utilities Department, the WRSL is presently adequately accommodating refuse generated by the City.[354] Refuse fees are collected from residential, commercial, and industrial accounts to cover collection and disposal costs.

In 2000, a total of 154,056 tons of solid waste was generated in the City of Roseville, but total waste disposal after all recycling efforts was reduced to 88,566 tons.[355] Year 2000 showed a total of 38,595 tons of residential waste collection through City services.[356]

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[351] Thom Carmichael, Western Placer Waste Management Authority, personal communication, January 15, 2003
[352] Will Dickinson, Western Placer Waste Management Authority, personal communication, December 14, 2002
[353] Will Dickinson, Western Placer Waste Management Authority, personal communication, December 14, 2002
[354] City of Roseville, Environmental Utilities Department, Engineering Division, Kelye McKinney, Senior Civil Engineer, Memorandum, June 7, 2002
[355] City of Roseville, Environmental Utilities Department, Engineering Division, Kelye McKinney, Senior Civil Engineer, Memorandum,

The remainder of the waste generated was from commercial, industrial, and construction materials collected by private firms. The SRRE planned for a MRF system to assist in reaching State-mandated recycling goals. The MRF, which opened in November 1995 at the WRSL, separates and recovers waste products for recycling, reuse, or conversion to energy resources. In 2001, the MRF diverted 48,965 tons of materials from landfill disposal. While the City does not currently operate a green waste collection program, leaves are collected from City streets through a seasonal collection program and delivered to the MRF composting operation.[357] The City has budgeted to start a pilot green waste collection program in 2004 with 6,800 residential accounts that will receive green waste collection containers. The pilot program will service approximately 22% of the residential customer base. The City's overall landfill diversion rate in 2000 was 45 percent.[358]

While the landfill is permitted to accept up to 1,900 tons per day, the MRF is only able to process approximately 1,050 tons per day due to the limited size of the handling floor and the number of operating hours per day (12 hours Monday through Friday, with reduced hours on the weekend).[359]

If more than 1,050 tons comes to the MRF in one day, the amount that cannot be processed is processed the next day.[360] This is possible as less waste is generally accepted at the MRF on weekends (200-400 tons/day).[361] If materials come to the MRF that are normally recyclable, but cannot be recycled for whatever reason, the waste is disposed of at the landfill.[362] The most common occurrence of this involves wood waste. If wood is attached to sheetrock, siding, or other materials that make the wood unsuitable for recycling, the waste is disposed of at the landfill.[363]

In August 2003, new permits were issued to the WPWMA from the California Integrated Waste Management Board to expand the landfill and increase the MRF capacity. The landfill's maximum daily intake capacity was increased to 1,900 tons/day, but the maximum number of permitted vehicle trips per day at the landfill remained at 624. The permitted MRF tonnage increased to 1,750 tons/day, with a peak daily number of vehicle trips at the MRF increased to 939.

June 7, 2002

[356] City of Roseville, Environmental Utilities Department, Engineering Division, Kelye McKinney, Senior Civil Engineer, Memorandum, June 7, 2002

[357] City of Roseville, Solid Waste Utility, Environmental Utilities Department, Terry Bosik, personal communication, July 1, 2002

[358] City of Roseville, Solid Waste Utility, Environmental Utilities Department, Terry Bosik, personal communication, July 15, 2002

[359] Eric Oddo, Western Placer Waste Management Authority, personal communication, January 17, 2003

[360] Eric Oddo, Western Placer Waste Management Authority, personal communication, January 17, 2003

[361] Eric Oddo, Western Placer Waste Management Authority, personal communication, January 17, 2003

[362] Eric Oddo, Western Placer Waste Management Authority, personal communication, January 17, 2003

[363] Eric Oddo, Western Placer Waste Management Authority, personal communication, January 17, 2003

The WPWMA approved a Capacity Enhancement Project in May 2003 enabling staff to pursue improvements to the MRF operation such as extending its processing hours to 16 hours (two full shifts) and expanding the handling floor. These improvements will allow the MRF to handle the permitted 1,750 tons/day on a daily basis, likely with no surplus materials carried over to the next day.

4.11.12 Regulatory Setting

Federal

Title 40 of the Code of Federal Regulations (CFR), Part 258 (Resource Conservation and Recovery Act [RCRA, Subtitle D]) contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design, groundwater monitoring, and closure of landfills.

Federal requirements for disposal of biosolids are set forth in Title 40 Part 503 of the CFR.

State

AB 939

The federal regulations are implemented by the California Public Resource Code Sections 40000 *et seq*. (California Integrated Waste Management Act). The State agency charged with the permitting of solid waste facilities is the California Integrated Waste Management Board.

Assembly Bill 939 (AB 939) (Public Resources Code Section 41780) is designed to increase landfill life and conserve other resources through increased source reduction and recycling. AB 939 requires cities and counties to prepare Solid Waste Management Plans and Source Reduction and Recycling Elements to implement AB 939's goals, which included diverting approximately 50 percent of solid waste from landfills and identifying programs to stimulate local recycling in manufacturing and the purchase of recycled products.

Local

City of Roseville

The City's SRRE was prepared to implement the state-mandated waste reduction goals specified in AB 939. The City has not yet met AB 939's 50 percent reduction goal for 2000. The City's waste reduction for

2000 was 45 percent.[364] To meet these goals, the SRRE specifies three methods: (1) source reduction, which is a net reduction in waste generation at the source; (2) recycling, which is a reuse of materials to produce new similar products or different products; and (3) composting, which is a process of biological decomposition of solid organic debris, such as leaves, grass clippings, and other organic material commonly found in the municipal waste stream to create useable material. The City met the AB 939 reduction goals of 25 percent by 1995.[365] AB 939 also requires the SRRE to project solid wastes generated within Roseville through 2005.

The Roseville Flow Control Agreement between the City of Roseville and the WPWMA states that any waste generated within the City must go to the MRF for sorting and to the landfill for disposal. Temporary construction and demolition debris however, may be hauled to a landfill facility outside of Placer County. Any materials that are collected through recycling programs that are established by the City, such as the collection of green waste, must also be disposed of at the MRF.

The SRRE, which is provided in the City of Roseville General Plan, includes goals and policies for solid waste disposal. Refer to Appendix C for a complete list of all applicable City goals and policies.

West Roseville Specific Plan

The WRSP requires a 50 percent reduction in the development's construction waste stream. Developers must submit records of diversion and disposal to the City's Environmental Utilities Department in order to verify compliance with this requirement.

The WRSP designates a site for a recycling collection/drop-off center on Phillip Road. The center would occupy a site of at least 150' by 150' and provide easy access for residents. The site will be paved and fenced, with appropriate signage.

4.11.13 Impacts and Mitigation Measures

Methods of Analysis

The analysis of solid waste service impacts are based upon consideration of the estimated amount of solid waste anticipated to be generated by the project. The following solid waste generation rates have been approved by the City of Roseville Environmental Utilities Department Western Placer Waste

[364] City of Roseville, Solid Waste Utility, Environmental Utilities Department, Terry Bosik, personal communication, July 15, 2002
[365] City of Roseville, Comprehensive Land Use Element Update Project, page 4.16-1, February 1995

Management Authority (memorandum for EIP to City of Roseville and Western Placer Waste Management Authority, December 12, 2002):

- Residential: 2.7 lbs/resident/day
- Commercial: 1 lb/100 square feet/day
- Industrial: 1 lb/100 square feet/day

These rates have been used to estimate the solid waste generation for the project, including the WRSP Area and the Remainder Area. The amount of waste generated is then compared to the annual and daily tonnage intake of the landfill and the MRF. Additional waste due to construction activities is addressed qualitatively.

In order to determine how the project would affect the landfill, an estimate of the annual tonnage generated by the project was multiplied by twenty to thirty years, which represents the general estimate of the time that the project would be completed and occupied. The total tonnage estimated to be generated was then compared to the remaining landfill capacity. In addition, the total tonnage was compared to the amount of waste estimated to be received in two different years (2003 and 2035, which represents the least and greatest amount of solid waste that would be generated by the project, respectively) to estimate the number of years that the landfill's lifespan would be shortened.

Buildout of the landfill is based on information provided by the WPWMA, including the *Draft Environmental Impact Report for the Capacity Enhancement Project 2002–2003* (January 2003).

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area would do either of the following:

- Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs
- Generate more solid waste than the MRF can handle on a daily basis, due to either processing or permitting constraints

Impacts

IMPACT 4.11-9	INCREASED DEMAND FOR SOLID WASTE SERVICES AT THE LANDFILL.	
Applicable Policies and Regulations:	Assembly Bill 939	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.11-7 (Expand the landfill) and MM 4.11-8 (Greenwaste containers)	MM 4.11-7 (Expand the landfill) and MM 4.11-9 (Waste reduction policies)
Significance after Mitigation:	Significant and Unavoidable	Significant and Unavoidable

Solid Waste/Landfill

Development of the SOI Amendment Area would result in solid waste generated by residences, retail and commercial establishments, offices, industrial operations, schools, and recreational facilities. Using the factors cited above, a total of 29,446 tons/year of solid waste would be generated in the SOI Amendment Area (refer to Table 4.11-15, Table 4.11-16, Table 4.11-17, and Table 4.11-18).[366] It should be noted that this estimate is conservative because the WRSP includes source-reduction measures, such as a recycling collection/drop-off center on Phillip Road and green waste containers for every residence as part of the project. These measures would divert green waste and recyclable materials from the landfill. In addition, implementation of AB 939 requires cities and counties to prepare Solid Waste Management Plans and Source Reduction and Recycling Elements that establish programs with the goal of diverting 50 percent of solid waste from landfills. However, an estimate of the diversion is not provided at this time, nor taken into account in the impact analysis because reduction rate factors for recycling and green waste composting have not been established.

At buildout of the City's General Plan, based upon the California Integrated Waste Management Board generation rates, the City could generate approximately 153,177 tons per year of solid waste (refer to Table 4.11-19), assuming that existing and currently approved projects would generate waste at the same rate assumed for the SOI Amendment Area. Development of the SOI Amendment Area would increase City waste generation by approximately 19 percent over the amount anticipated under the current General Plan. This solid waste would be hauled to the WRSL and would require additional City of Roseville solid waste hauling services.

[366] Thom Carmichael, Western Placer Waste Management Authority, written communication, February 10, 2003. Also, Western Placer Waste Management Authority, Capacity Enhancement Project 2002–2003 Draft Environmental Impact Report, January 9, 2003, Table 3-1

Table 4.11-15 Solid Waste Generation—Residential Uses

Project Area	Number of Households	Average Number of Persons Per Household	Total Residential Population	Per Capita Daily Solid Waste Generation (lbs/day)	Total Solid Waste Generation (lbs/day)	Total Solid Waste Generation (tons/day)	Total Solid Waste Generation (tons/year)
West Roseville Specific Plan Area	7,720	2.53	19,532	2.7	52,736.4	26.3	9,624
	710	1.8	1,278	2.7	3,450.6	1.7	630
Bio-solid Sludge Generation			20,810	0.66	13,734.6	6.8	2,506
Total WRSP	***8,430***		***20,810***		***69,921.6***	***34.8***	***12,760***
Remainder Area	7,403	2.53	18,730	2.7	50,571.0	25.3	9,235
Bio-solid Sludge Generation			18,730	0.66	12,361.8	6.18	2,256
Total Remainder Area			***18,730***		***62,932.8***	***31.5***	***11,491***
Total SOI Amendment Area[2]	***15,833***		***39,540***		***132,854.4***	***66.3***	***24,251***

NOTES:

Some numbers may not add up due to rounding.

1. Age-restricted households.
2. Numbers are calculated by adding WRSP and Remainder Areas together.

SOURCE: EIP Associates 2003

Table 4.11-16 Solid Waste Generation—Commercial Uses

Project Area	Square Feet of Commercial Uses	Solid Waste Generation (lbs/100 sf/day)	Total Solid Waste Generation (lbs/day)	Total Solid Waste Generation (tons/day)	Total Solid Waste Generation (tons/year)
West Roseville Specific Plan Area	426,890	1	4,269	2.1	767
Remainder Area	588,933	1	5,889	2.9	1,059
SOI Amendment Area[1]	1,015,823		10,158	5.0	1,826

NOTES:

1. Numbers are calculated by adding WRSP and Remainder Areas together.

SOURCE: EIP Associates 2003

Table 4.11-17 Solid Waste Generation—Industrial/Business Professional Uses

Project Area	Square Feet of Industrial and Business Professional Uses	Solid Waste Generation (lbs/100 sf/day)	Total Solid Waste Generation (lbs/day)	Total Solid Waste Generation (tons/day)	Total Solid Waste Generation (tons/year)
West Roseville Specific Plan Area	1,201,390	1	12,014	6.00	2,190
Remainder Area	646,849	1	6,468	3.23	1,179
SOI Amendment Area[1]	1,848,239		18,482	9.23	3,369

NOTES:

1. Numbers are calculated by adding WRSP and Remainder Areas together.

SOURCE: EIP Associates 2003

Table 4.11-18 Solid Waste Generation—All Uses

Project Area	Total Solid Waste Generation (lbs/day)	Total Solid Waste Generation (tons/day)	Total Solid Waste Generation (tons/year)
West Roseville Specific Plan Area	86,205	42.9	15,717
Remainder Area	75,290	37.6	13,729
SOI Amendment Area	161,494	80.5	29,446

NOTES:

1. Numbers are calculated by adding Tables 4.11-17 and 4.11-19 together.

SOURCE: EIP Associates 2003

Table 4.11-19 City Of Roseville Solid Waste Buildout Of The General Plan

Use	Dwelling Units	Population	Square Footage	Solid Waste Factor	Solid Waste Generated (lbs/day)	Solid Waste Generated (tons/day)	Solid Waste Generated (tons/year)
Residential	50480	127,714	—	2.7 lbs/day/person	344,827.80	172.41	62,931.07
Commercial	—	—	17,334,500	1 lb/100 sf/day	173,345.00	86.67	31,635.46
Industrial	—	—	19,775,100	1 lb/100 sf/day	197,751.00	98.88	36,089.56
Business Professional	—	—	12,340,400	1 lb/100 sf/day	123,404.00	61.70	22,521.23
Total	***50480***	***127,714***	***49,450,000***	**—**	***839,327.80***	***419.66***	***153,177.32***

SOURCE: EIP Associates 2003

The landfill has a remaining capacity of approximately 14 million tons. Currently, the landfill is projected to be able to accept waste until 2036. However, the final closure date could be affected by several factors, including regional growth rates, economic conditions, and the efficiency of waste recovery.[367] Depending on when the SOI Amendment Area is built out, it would generate approximately 588,920 to 883,380 tons of solid waste (assuming 20 to 30 full years of waste generation prior to 2036). This waste would require 4.2 to 6.3 percent of the landfill's remaining capacity.

West Roseville Specific Plan

The WRSP requires a 50 percent reduction in the development's construction waste stream. Developers must submit records of diversion and disposal to the City's Environmental Utilities Department in order to verify compliance with this requirement.

The WRSP designates a site for a recycling collection/drop-off center on Phillip Road. The center would occupy a site of at least 150′ by 150′ and provide easy access for residents. The site will be paved and fenced, with appropriate signage.

[367] Western Placer Waste Management Authority, Capacity Enhancement Project 2002-2003 Draft Environmental Impact Report, January 9, 2003, p. 3-6

A total of approximately 15,717 tons per year of solid waste would be generated by development of the WRSP Area (refer to Table 4.11-18). As discussed above, the City would collect this solid waste and convey it to the WRSL. At buildout of the City's General Plan, the WRSP would increase the amount of waste generated in the City by approximately 9.8 percent.

As stated above, these figures are conservative because the WRSP requires additional source-reduction measures that would divert an unknown amount of waste. The WRSP would increase the amount of waste received by the WRSL over a twenty to thirty year period by approximately 314,340 to 471,510 tons, or 2.2 to 3.4 percent of the remaining capacity. This increase in waste could shorten the lifetime of the landfill by as much as 1.75 years (based on the amount of waste projected to be received in 2003). Because the WRSP would substantially shorten the life of the landfill, the impact is considered significant**.**

Greenwaste bins, which would be required by MM 4.11-8, would reduce the amount of waste by 1,335 tons/yr resulting in a total generation of 14,382 tons per year. As discussed above, MM 4.11-7 would also reduce this impact by expanding landfill capacity; however, the City cannot guarantee landfill expansion beyond current plans. Therefore, this impact is considered **significant and unavoidable**.

Remainder Area

A total of approximately 13,729 tons per year of solid waste would be generated by development of the Remainder Area (refer to Table 4.11-18). This would increase the amount of waste collected by the City at buildout of the General Plan by 7.5 percent. The Remainder Area would generate 274,580 to 411,870 tons of waste over a twenty to thirty year period, which would require approximately 2.0 to 2.9 percent of the remaining capacity of the landfill, and could shorten the life of the landfill by up to approximately 1.4 years. This is considered a significant impact**.**

MM 4.11-9 would reduce the amount of waste at the landfill by requiring that Specific Plans or other development plans in the Remainder Area provide greenwaste bins to residences. This mitigation would reduce landfill disposal by approximately 1,167 tons/year; however, because the total amount of solid waste to be landfilled would remain substantial, MM 4.11-7 would be required to further reduce this impact by expanding landfill capacity. As previously stated, the City cannot guarantee landfill expansion beyond current plans. Therefore, this impact is considered **significant and unavoidable**.

IMPACT 4.11-10:	INCREASED DEMAND FOR SOLID WASTE SERVICES AT THE MRF.	
Applicable Policies and Regulations:	Assembly Bill 939	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.11-10 (Increase MRF Capacity)	MM 4.11-10 (Increase MRF Capacity)
Significance after Mitigation:	Significant and Unavoidable	Significant and Unavoidable

Solid Waste/MRF

On average, the MRF receives approximately 1,000 tons/per day[368], which is below its capacity of 1,750 tons/day. Current operation capacity limits its daily tonnage to approximately 1,050 tons; however, the WPWMA has approved plans to increase its physical capacity (including sorting lines, flooring, and operational hours) to process its permitted amount to 1,750 tons per day.

Development of the SOI Amendment Area would generate approximately 65 tons per day of solid waste that would require processing at the MRF. The WPWMA projects that by 2008 the MRF will be receiving a peak of 1,707 tons per day. The peak tonnage received at the MRF would continue to increase as growth occurs in the service area and would likely exceed 1,750 by 2009. If the 65 tons per day from the SOI Amendment Area is added to the 2008 peak tonnage at the MRF, the total of 1,772 would exceed both the existing and planned permit amounts by 2008. Over time, the increased waste from the SOI Amendment Area would exacerbate the need for additional MRF processing capacity. Implementation of AB 939 requires the establishment of goals of diverting 50 percent of solid waste from landfills, which helps reduce impacts associated with an increased demand for solid waste at the MRF.

West Roseville Specific Plan

Development of the WRSP would produce approximately 36 tons per day of solid waste, which would be sent to the MRF for sorting. As discussed above, the MRF is projected to approach its peak tonnage capacity around 2008, not including WRSP Area waste. By 2009, the MRF will likely exceed 1,750 tons per day on peak days. The addition of waste from the WRSP Area would accelerate the rate at which the MRF could exceed its existing and planned capacity. This would be a significant impact**.**

[368] Eric Oddo, Western Placer Waste Management Authority, personal communication, January 24, 2003.

MM 4.11-10 would increase the capacity of the MRF by adding additional processing lines. This could increase MRF capacity to approximately 2,400 tons per day, which would be adequate to process waste from the WRSP Area and from other development anticipated in WPWMA's current plans. As a member of the WPWMA, the City can support increased capacity of the MRF; however, the City cannot compel the WPWMA to take such action. Furthermore, in order to undertake increased capacity, the WPWMA would need to conduct a CEQA review and obtain amendments to permits governing the MRF. For these reasons, whether and when the MRF will be expanded cannot be determined at this time. Therefore, this impact is considered **significant and unavoidable**.

Remainder Area

Development of the Remainder Area is expected to produce approximately 29 tons per day of solid waste. As discussed above, when combined with waste from other planned development, the amount of waste to be processed could exceed existing and planned capacity at the MRF. This would be a significant impact**.** MM 4.11-10 would increase the capacity of the MRF. However, the City cannot guarantee that the MRF will be expanded, or when. Therefore, this impact is considered **significant and unavoidable**.

IMPACT 4.11-11	**CONSTRUCTION DEBRIS DEMAND FOR SOLID WASTE SERVICES.**	
Applicable Policies and Regulations:	Assembly Bill 939	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.11-7 (Expand the landfill), MM 4.11-10 (Increase MRF capacity), and MM 4.11-11 (Recycle Construction Debris)	MM 4.11-7 (Expand the landfill), MM 4.11-10 (Increase MRF capacity), and MM 4.11-12 (Construction debris policies)
Significance after Mitigation:	Significant and Unavoidable	Significant and Unavoidable

Construction Debris

West Roseville Specific Plan

As discussed above, development of the WRSP Area would include removal of debris from the site and the construction of new buildings, which would generate construction debris that requires disposal. Construction and demolition activities can generate significant amounts of waste. As discussed in Impacts 4.11-8 and 4.11-9, solid waste generated by the WRSP would shorten the life of the landfill and exceed the processing capacity of the MRF. Construction debris would exacerbate these impacts. This is considered a significant impact**.**

Consistent with the requirements of AB 939, MM 4.11-11 requires that 50 percent of the construction debris from the WRSP be diverted from the landfill. Developers must submit all diversion and disposal records to the City's Environmental Utilities Department to demonstrate that the 50 percent diversion requirement has been satisfied. MM 4.11-7 and MM 4.11-10 would increase the capacity of the landfill and MRF. Together, these measures would reduce impacts on WPWMA facilities. However, as discussed above, the City cannot guarantee implementation of MM 4.11-7 and MM 4.11-10. Therefore, this impact is considered **significant and unavoidable**.

Remainder Area

As discussed above, construction and demolition activities generate construction debris in addition to the waste that would be generated on an annual basis once development is occupied. As discussed in Impact 4.11-8 and Impact 4.11-9, solid waste generated on an annual basis in the Remainder Area would shorten the life of the landfill and exceed the processing capacity of the MFR. Construction debris would exacerbate these impacts. This is considered a significant impact**.** MM 4.11-12 would reduce the amount of construction debris that requires processing at the MRF and/or landfilling by including construction debris recycling policies or conditions for development in the Remainder Area. Consistent with the requirements of AB 939, MM 4.11-7 and MM 4.11-10 would increase the capacity of the landfill and MRF. Together, these measures would reduce impacts on WPWMA facilities. However, as discussed above, the City cannot guarantee implementation of MM 4.11-7 and MM 4.11-10. Therefore, this impact is considered **significant and unavoidable**.

Mitigation Measures

MM 4.11-7 *Expand the WRSL landfill (Impact 4.11-9 — WRSP and Remainder Area)*

Development in the WRSP Area and Remainder Area shall pay collection fees to the City of Roseville, a portion of which shall be used to service bonds necessary to fund landfill expansion on an adjacent property that is suitable for such a use. As a member of the WPWMA, the City of Roseville can support expansion of the landfill, as needed; however, the City cannot compel the WPWMA to expand the landfill.

Expansion of the landfill would create environmental effects. Because plans for expansion of capacity beyond 2036 have not been developed, specific impacts cannot be identified at this time. Nonetheless, because of the expansion site's proximity to the existing landfill, it can be anticipated that impacts of an expansion would be similar to those attributed to the currently planned expansion. First, there would be construction-related impacts, such as air pollutant emissions and noise from construction equipment and erosion. In addition, agricultural land and biological resources, potentially including

wetlands and Swainson's hawk foraging habitat, could be lost. Once constructed, the landfill could create additional odors, traffic, operational air emissions (due to increased vehicle trips to the landfill), increased emissions of landfill gas and combustion flare emissions, litter, night lighting and changes in visual character, degradation of surface and groundwater quality, and geologic hazards. These impacts would be similar to those of the existing landfill, and, where significant, could be reduced by implementation of mitigation measures already required of the landfill and the permitting process. However, there could be impacts, such as the loss of biological and agricultural resources, that would remain significant and unavoidable even after mitigation.

MM 4.11-8 Greenwaste receptacles (Impact 4.11-9 — WRSP)

All residences shall be provided with one 90-gallon greenwaste receptacle.

MM 4.11-9 Greenwaste policies (Impact 4.11-9 — Remainder)

Specific Plans and/or other development proposals for the Remainder Area shall require that all residences be provided with greenwaste containers.

MM 4.11-10 Increase MRF capacity (Impact 4.11-10 — WRSP and Remainder Area)

Operations at the MRF could be expanded by increasing the number of processing lines. Like expansion of the landfill, increasing MRF capacity would be under the jurisdiction of the WPWMA. The WPWMA can and should increase the capacity of the MRF and the City should advocate that it do so.

Expansion of the MRF capacity would have environmental effects, such as construction noise, increases in vehicle traffic and emissions, and a shortened lifespan for the landfill (because more waste would be disposed of on a daily basis). Specific impacts would need to be identified and evaluated by the WPWMA if it decided to further increase the capacity of the MRF.

MM 4.11-11 Divert construction debris (Impact 4.11-11 — WRSP)

The applicant shall ensure a 50 percent reduction in the development's construction waste stream. In Developer's contracts with construction contractors and their subcontractors, the Developer shall require that contractors reduce construction waste stream by 50 percent. The Developer shall further require that contractors and subcontractors submit records of diversion and disposal to the City's Environmental Utilities Department in order to verify compliance with this requirement.

MM 4.11-12 Construction debris policies (Impact 4.11-11 — Remainder)

Specific Plans and/or other development proposals for the Remainder Area shall provide for diversion and recycling of construction debris.

ELECTRICITY AND NATURAL GAS

4.11.14 Environmental Setting

Electricity

Supply

The City purchases wholesale electrical power from both the Western Area Power Administration (WAPA), which is generated by the federal government's Central Valley Project, and from other members of the Northern California Power Agency (NCPA), a joint powers agency, and distributes it through transmission and distribution lines. The City may purchase power from other members and entities.

There are two potential public utility providers that could provide electricity to the SOI Amendment Area: Pacific Gas and Electric Company (PG&E) and the City of Roseville Electric Department (Roseville Electric). Roseville Electric provides electrical service to customers within the City limits, and is anticipated to be the service provider for the entire SOI Amendment Area.

In 2000, the City's annual electrical demand was approximately 243 mega-watts (MW).[369] By the year 2010, the City's electrical demand is expected to rise to 296 MW (without the WRSP or SOI Amendment).[370] The peak demand for electricity for the City in July 2002 was approximately 274 MW. This is the highest electricity demand in the City.[371] That demand was filled by:[372]

- 20 MW from steam-injected combustion turbines
- 16 MW from simple-cycle combustion turbines
- 44 MW from Calaveras hydroelectric project
- 69 MW from Western Area Power Administration
- 20 MW from Seattle City Light

[369] Roseville Electric website, Roseville Electric, 2000 Annual Report Quantum Leaps—The Electric System, www.rosevilleelectric.org, accessed August 24, 2002
[370] Phillip McAvoy, City of Roseville, written communication, March 31, 2003
[371] Phillip McAvoy, Energy Market Analyst, Roseville Electric, personal communication, August 19, 2002
[372] Mike Wardell, Risk Manager/Trader, Roseville Electric, personal communication, August 19, 2002

- 11 MW from Geothermal Nos. 1 and 2
- 94 MW (remainder) from market purchases

The City can remove 30 percent of its supply if the market price for energy drops to protect it against financial hardship.[373] Revenue sources for the City's utility system include electric rates and direct installation fees. These fees are collected as a condition of approval of development projects.

The City currently encourages energy conservation by providing information regarding rebate programs for energy efficiency investments and educational programs for residents and businesses. In addition, Title 24 of the California Code of Regulations requires the use of energy-efficient appliances in all new development.

Transmission

There are currently 21-kilovolt (kV) overhead lines along Fiddyment Road between Blue Oaks Boulevard and Baseline Road, and an extension of these lines to the east along the north side of Blue Oaks Boulevard toward Woodcreek Oaks Boulevard.374 There is also a 60-kV overhead line along Baseline Road. A 60-kV overhead line may be constructed along Fiddyment Road north of Blue Oaks Boulevard.375 Currently, there is a substation at the intersection of Baseline Road and Fiddyment Road and a 12-kV line that connects PGWWTP.376 There is a 12-kV network serving the Del Webb Specific Plan area, and another 12-kV network serving the North Roseville Specific Plan Area (Phase 2).377 A 230-kV electrical receiving station is located in the Remainder Area on the east side of Fiddyment Road, approximately 375 feet south of Pleasant Grove Boulevard. The northern boundary of the substation site is adjacent to an existing 425-foot wide transmission corridor that consists of above-ground 230-kV transmission lines that run east/west through the Remainder Area approximately 375 feet south of Pleasant Grove Boulevard. Buffer zones are provided around the facility. Figure 4.11-7 (West Roseville Specific Plan Electric Substation and 60 kV Power Line Easements) illustrates the location of proposed 60 kV electrical line as well as alternative alignments for the 60 kV line.

Natural Gas

PG&E, a privately owned and operated utility company, provides natural gas to the City of Roseville. PG&E currently has a 6-inch high-pressure plastic gas main located on the east side of Fiddyment Road.

[373] Mike Wardell, Risk Manager/Trader, Roseville Electric, personal communication, August 19, 2002
[374] Kam Hung, Roseville Electric, personal communication, August 19, 2002
[375] City of Roseville, *Draft West Roseville Specific Plan*, April 2002, p. 6-13
[376] Kam Hung, Roseville Electric, personal communication, August 19, 2002
[377] Kam Hung, Roseville Electric, personal communication, August 19, 2002

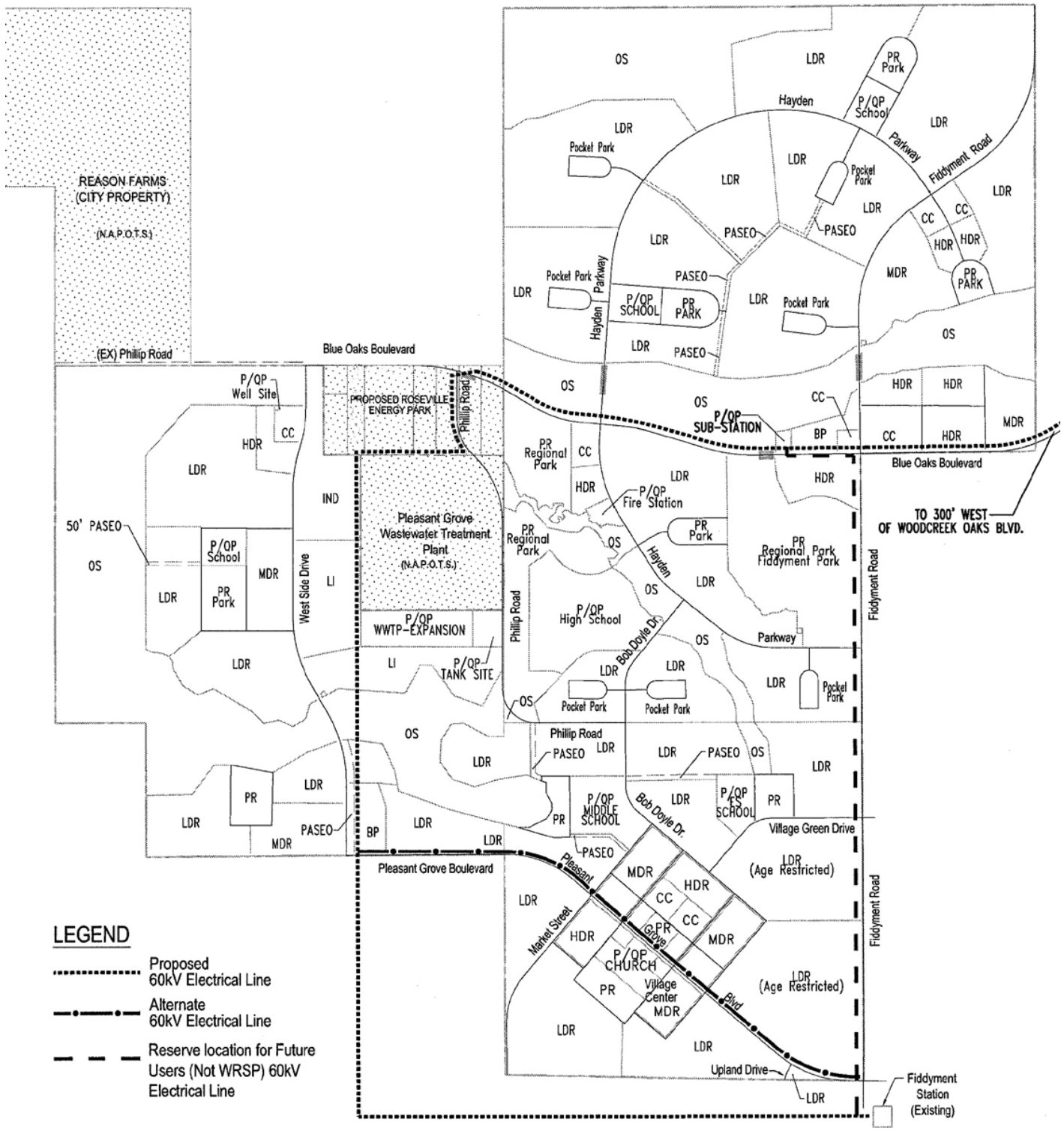


FIGURE **4.11-7**

West Roseville Specific Plan Electric Substation and 60kV Power Line Easements

Not to Scale

10659-00

Source: West Roseville Specific Plan 2003 City of Roseville

EIP ASSOCIATES

There are also 6-inch high-pressure plastic gas lines located along the north side of Baseline Road and the south side of Blue Oaks Boulevard, both of which have stubs just west of Fiddyment Road in the SOI Amendment Area. According to PG&E, the average amount of natural gas consumed by a residential unit in the City of Roseville is approximately 150 cubic feet per day (cfd) per unit.[378]

The City's ongoing development review process includes a review and comment opportunity for privately owned utility companies, including PG&E, to allow for informed input from each utility company on all development proposals. The input facilitates a detailed review of all projects by service purveyors to assess the potential demands for utility services on a project-by-project basis. The ability of PG&E to provide its services concurrently with each project is evaluated during the development review process. Funding for gas service is collected through company billings and developer fees put toward the extension of infrastructure to new development.

4.11.15 Regulatory Setting

Federal

The Federal Energy Regulatory Commission regulates the transmission and sale of electricity in interstate commerce, licenses hydroelectric projects, and oversees related environmental matters.

State

In 1996, State legislation was enacted which restructured California's electricity market. In accordance with Assembly Bill (AB) 1890, the generation of electricity is open to competition, but the transmission and distribution remain a regulated monopoly. The utilities are required to purchase all their electricity needs from the wholesale market. The goal of the legislation was to open the state's energy market to competition, with the expectation that competition would drive down the cost of electricity. The legislation gave the customers of investor-owned utilities, such as PG&E, the ability to choose who provides their electric energy, much the same way they can choose long distance telephone companies.

The State experienced a number of problems at the same time the electricity market was restructured. Many power plants were sold to privately owned, out-of-state energy companies. The demand for electricity grew faster than expected during the 1990s due to rapid growth in the State's economy, the spread of computer technology, the lack of new power plants constructed since the mid 1980s, the lack of widespread conservation due to relatively low electricity costs to consumers, and the State's population

[378] Ed Wong, Senior Gas Distribution Engineer, PG&E, written communication, September 20, 2002

growth (a 13 percent increase between 1990 and 2000). The State produces only part of its electricity needs: For example, in 1999, California produced about 82 percent of the electricity it used.[379] The rest must be bought from other western states. At the same time, the west, in particular the northwest, experienced dramatic growth, which reduced the amount of energy available from that area for use in California, which led to rolling blackouts and exorbitant electricity costs.

Because most power plants in California are powered by natural gas, the cost of making electricity increased during this same time due to dramatic increases in the price of natural gas during 2000. In January 2001, some utilities, including PG&E, began to experience financial problems.

Title 20 and Title 24, California Code of Regulations (CCR)

New buildings constructed in California must comply with the standards contained in Title 20, Energy Building Regulations, and Title 24, Energy Conservation Standards, of the CCR. Title 20 contains the regulations relating to power plant siting certification. Title 24 (AB 970) contains the energy efficiency standards for residential and nonresidential buildings based on a state mandate to reduce California's energy demand.

Warren-Alquist Energy Resources Conservation and Development Act

The State Energy Commission regulates energy resources by encouraging and coordinating research into energy supply and demand problems and to reduce the rate of growth of energy consumption (Warren-Alquist Energy Resources Conservation and Development Act Government Code section 25000 *et seq*.).

Pacific Gas and Electric

PG&E's Gas Rule 15 provides guidelines for the extension of gas distribution mains necessary to furnish permanent services to customers. It outlines responsibilities for installation and extension allowances, as well as financial contributions by project applicants. Gas Rule 16 applies to PG&E's service facilities that extend from PG&E's distribution main facilities to service delivery points, and the service-related equipment required on the project site to receive gas service. It discusses metering facilities, distribution main extensions, service connections, and responsibilities for new service extensions.

[379] California Energy Commission website, http://www.energy.ca.gov/html/energysources.html accessed September 10, 2002

Local

City of Roseville

The City of Roseville General Plan includes goals and policies for electricity and gas supply. Refer to Appendix C for a complete list of all applicable City goals and policies.

4.11.16 Impacts and Mitigation Measures

Methods of Analysis

The assessment of electricity and natural gas service is a qualitative review of services available to the project and a determination of whether they are adequate to serve its needs. Standard generation rates were used for the projected electrical and natural gas demand for the SOI Amendment Area.

The peak electrical demand for the project is calculated by applying the following electrical demand rates to the proposed land uses.[380] The additional electrical demand is compared to existing and proposed entitlements for electricity:

- Single-Family Residential: 0.0055 MW per year per dwelling unit
- Multi-Family Residential 0.0035 MW per year per dwelling unit
- Commercial: 0.116 MW per year per acre
- Business-Professional: 0.298 MW per acre
- Schools: 0.025 MW per acre
- Industrial 0.056 MW per year per acre

The average natural gas demand for the project is calculated by applying the following natural gas demand rates to the proposed land uses:

- Residential: 1,440 Therms per dwelling unit
- Commercial/Business-Professional: 63,600 Therms per acre
- Industrial 10,200 Therms per acre

[380] Philip McAvoy, Energy Market Analyst, Roseville Electric, written communication, April 14, 2003

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area would do the following:

- Generate a demand for electricity or natural gas that exceeds the existing or planned natural gas supply or capacity of transmission facilities

IMPACT 4.11-12:	INCREASED DEMAND FOR ELECTRICITY.	
Applicable Policies and Regulations:	CCR Title 20 CCR Title 24 (AB 970) Government Code Section 25000 *et seq.*	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Significant
Mitigation Measures:	None Required	MM 4.11-13 (Electric facilities policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

Electricity

West Roseville Specific Plan

The development and implementation of the WRSP Area would add land uses that would increase the demand for electrical services. As shown in Table 4.11-20, the increased demand for electrical service is estimated to average 60.67 MW per year within the WRSP Area, an increase of 20 percent over average existing City levels. Roseville Electric has indicated that there are no constraints to obtaining a reliable energy source to serve development in the WRSP Area.[381]

As shown in Figure 4.11-7, 21-kV lines currently exist along Fiddyment Road, with a 12-kV line connecting the PGWWTP. The existing Fiddyment Road substation is located at the southeast quadrant of Fiddyment Road and Pleasant Grove Boulevard. Extension of overhead power lines west along Pleasant Grove Boulevard, to the WAPA corridor, north to Blue Oaks Boulevard, and east through the project would provide a network to serve the WRSP Area. However, in order to provide enough electricity to the area, a new 60-kV substation would be required to serve the WRSP Area. A 1.5-acre site to the northwest of the intersection of Fiddyment Road and Blue Oaks Boulevard has been designated in the WRSP for this substation. This substation would be located on a 1.5-acre site with a 12-foot high fence

[381] City of Roseville, Executive Summary of the Feasibility Analysis Report for the Proposed West Roseville Specific Plan and City/County MOU Area, February 2002, p. 20

surrounded with landscape buffer. Electrical structures associated with the substation would range in height from 10 to 40 feet. Approximately two 60-foot tall, 60-kV tubular steel poles would also be installed in order to connect the substation to the proposed power lines along Blue Oaks Boulevard. A paved driveway would be installed within the substation for internal circulation of vehicles. The substation would be fed from new 60-kV overhead transmission lines that loop through the project site. Starting at the existing Fiddyment Road substation, the 60-kV lines would extend west along Pleasant Grove Boulevard, to the WAPA corridor, north to the PGWWTP, then east along the north side of Blue Oaks Boulevard to the planned substation at Fiddyment Road and Blue Oaks Boulevard. Electric power would leave the substation via distribution lines at 12-kV. Transformer bank(s), breakers, switches, and other electric equipment will be used to transform the voltage.

Table 4.11-20 Annual Electrical Demand West Roseville Specific Plan and Remainder Areas

Land Use Category	Number of Units/Acres	Electrical Demand Factor per Year[1]	Estimated Electrical Demand (MW) per Year
West Roseville Specific Plan Area			
Single-Family Residential	5,552 units	0.0055 MW per unit	30.54
Multi-Family Residential	2,878 units	0.0035 MW per unit	10.07
Commercial	47 acres	0.116 MW per acre	5.45
Industrial	108.5 acres	0.056 MW per acre	6.08
Business Professional	19.6 acres	0.298 MW per acre	5.84
Schools	107.6 acres	0.025 MW per acre	2.69
Total WRSP Demand			***60.67***
Remainder Area			
Single-Family Residential	5,296 units	0.0055 MW per unit	29.13
Multi-Family Residential	2,107 units	0.0035 MW per unit	7.38
Commercial	67.6 acres	0.116 MW per acre	7.84
Business Professional	49.5 acres	0.298 MW per acre	14.75
Total Remainder Area Demand			***59.10***
Total Demand in SOI Amendment Area			***119.76***

NOTES:

1. Demand factor units were originally in Mega Volt Amps (MVA), which are similar to megawatts (MW). For this analysis, MV was used.

SOURCE: Philip McAvoy, Energy Market Analyst, Roseville Electric, written communication, April 14, 2003; EIP Associates 2003

It is important to note that project impacts related to changing power generation and distribution in the western U.S. cannot be ascertained. It should also be noted that the City's sources of energy are diverse and widespread. The exact source that would supply the WRSP Area is not known at this time. Currently, the City obtains power from diverse sources, including combustion (natural gas), hydroelectric facilities, and geothermal projects. It is beyond the purview of this EIR to speculate about the impacts of increasing demand for any particular source of energy (e.g., hydroelectric, coal) or changes in the types of energy sources available to the City. Construction of new or expanded electrical generation or distribution facilities could affect the environment, particularly during construction when

impacts related to soil erosion, storm runoff, increased noise, dust, and vehicle emissions could result. In addition, sensitive habitats, visual resources, and cultural resources could be affected.

Although both PG&E and Roseville Electric have indicated that they can serve the WRSP Area, construction of a new substation and transmission lines must be completed to serve the WRSP Area. Physical impacts of that construction are evaluated in this EIR. Implementation of Title 20 and 24 of the CCR would reduce impacts associated with an increased demand for electricity by implementing energy efficient standards for residential and non-residential buildings. In addition, implementation of section 25000 *et seq*. would encourage, develop and coordinate research and development into energy supply and demand problems to reduce the rate of growth of energy consumption. Furthermore, since there is adequate electrical supply, and the substation and transmission lines will be constructed as part of the WRSP, the impact is considered **less than significant**.

Remainder Area

As shown in Table 4.11-20, the Remainder Area would require 59.10 MW of electricity annually. As discussed above, both PG&E and Roseville Electric have indicated they could serve the site and would provide the necessary transmission facilities. It is anticipated that an additional 60-kV substation would be required to serve the Remainder Area.[382] Without the new substation, future development within the Remainder Area could not be served. This would be a significant impact**.** MM 4.11-13 requires that a substation site be designated within the Remainder Area when a development proposal is submitted. Roseville Electric would monitor the Remainder Area's need for electricity, and the new substation or new transmission lines would be built when needed. Compliance with Title 20 and 24 of the CCR, as well as section 25000 et seq. would be required. Roseville Electric would be responsible for their construction. Because this measure would ensure that distribution facilities would be adequate, the impact would be **less than significant**.

IMPACT 4.11-13:	INCREASED DEMAND FOR NATURAL GAS.	
Applicable Policies and Regulations:	PG&E Gas Rule 15 and 16	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

[382] Kam Hung, Roseville Electric, personal communication, August 19, 2002

Natural Gas

West Roseville Specific Plan

The development of the WRSP Area would increase the demand for natural gas. As shown in Table 4.11-21, the increased demand for natural gas is estimated to average approximately 17,481,660 Therms per year. As shown in Figure 4.11-8 (PG&E Natural Gas Line), a 6-inch gas line is located near the eastern border of the WRSP Area.

Table 4.11-21 Annual Natural Gas Demand West Roseville Specific Plan and Remainder Areas

Land Use Category	Number of Units/Acres	Natural Gas Demand Factor per Year	Estimated Natural Gas Demand (Therms) per Year
West Roseville Specific Plan Area			
Residential	8,430 units	1,440 Therms per dwelling unit	12,139,200
Commercial/ Business-Professional	69.8 acres	63,600 Therms per acre	4,439,280
Industrial	115 acres	10,200 Therms per acre	1,173,000
Total WRSP Demand			*17,751,480*
Remainder Area			
Residential	7,403 units	1,440 Therms per dwelling unit	10,660,320
Commercial/Business Professional	117.1 acres	63,600 Therms per acre	7,447,560
Total Remainder Area Demand			*18,107,880*
Total Demand in SOI Amendment Area			***35,859,360***

SOURCE: North Roseville Specific Plan DEIR 1997; EIP Associates 2003

There are several possibilities for additional natural gas line connections. It may be possible to route a feeder of the transmission line (Line 123) east of the WRSP Area that provides the feed (a regulation station on Blue Oaks) for the existing gas system on Fiddyment Road and throughout the Del Webb Sun City Development.[383]

More likely, the utility would build a new 500-psi distribution feeder main down Baseline Road from Line 123 to a new regulator station near Fiddyment Road and Baseline Road, then a 60 psi 6- or 8-inch main up Fiddyment Road as an additional feed for the WRSP Area.[384] Line extensions off major roadways and subsequent line extensions in various neighborhoods would be made per Gas Rule 15. Service to the individual dwelling units and the commercial parcels would be made per Gas Rule 16.[385]

In the future, a new natural gas regulator station would be required to service the entire WRSP Area. An extension of the 6-inch 60-psi gas backbone feeder would occur along the industrial zoned sections in the

[383] G.A. Krause & Associates, Memo: Dry Utility Overview and Opportunity Assessment, February 11, 2002, p. 8
[384] G.A. Krause & Associates, Memo: Dry Utility Overview and Opportunity Assessment, February 11, 2002, p. 8
[385] G.A. Krause & Associates, Memo: Dry Utility Overview and Opportunity Assessment, February 11, 2002, p. 8

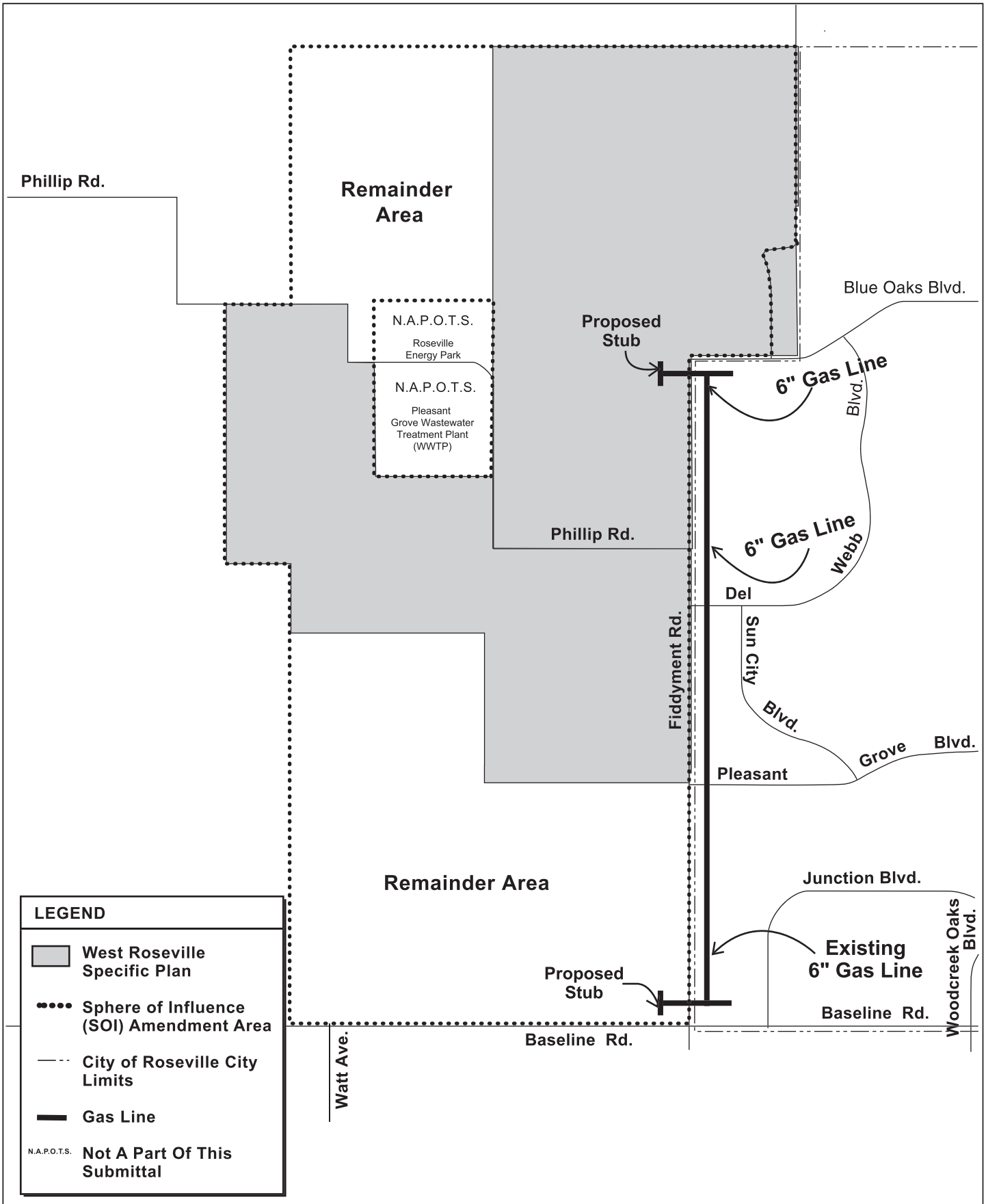


FIGURE **4.11-8**

PG & E Natural Gas Line

Not to Scale

10659-00

Source: Wade Associates, 2003; EIP Associates, 2003

City of Roseville

EIP ASSOCIATES

western portion of the project site.[386] When usage approaches existing capacity, it would be necessary to bring in another feed from a second source.[387] According to PG&E, there is adequate natural gas supply and the WRSP provides for needed transmission lines. Therefore, this impact is considered **less than significant**.

Remainder Area

As shown in Table 4.11-21, the Remainder Area would require 18,107,880 therms of natural gas per year. As discussed above, PG&E has indicated that it can serve the site. It is anticipated that additional natural gas lines would be required to serve the Remainder Area. There are currently 6-inch stub lines just west of Fiddyment Road at Blue Oaks Boulevard and Baseline Road. The southern portion of the Remainder Area could tap into the line at Baseline Road and Fiddyment Road. Lines to serve the Remainder Area could tap into these stub lines. With the excess natural gas supply that PG&E currently has and connections to these existing lines, PG&E would be able to accommodate development of the Remainder Area. Therefore, this impact is considered **less than significant**.

Mitigation Measures

MM 4.11-13: Electric facilities policies (Impact 4.11-12 — Remainder)

> Specific Plans and/or other development proposals for the Remainder Area shall identify a substation or substations and appropriately sized transmission lines, as determined by the City. Roseville Electric shall monitor electrical use in the Sphere of Influence area, and construct these facilities as needed. At the time specific development is proposed within the Remainder Area, additional environmental review would be required which analyzes electrical facilities. Any proposal for development in the Remainder Area shall demonstrate that these facilities will be available to serve the proposed development prior to occupation.

CABLE TELEVISION AND TELEPHONE SERVICES

4.11.17 Environmental Setting

Cable television service is provided within the City of Roseville by Comcast Cablevision of Sacramento. Telephone service is provided by the Roseville Telephone Company (Surewest), SBC/Pacific Bell, or other service providers. The cable and telephone companies are privately owned and operated. The existing

[386] G.A. Krause & Associates, Memo: Dry Utility Overview and Opportunity Assessment, February 11, 2002, p. 8
[387] G.A. Krause & Associates, Memo: Dry Utility Overview and Opportunity Assessment, February 11, 2002, p. 8

development review process for project proposals includes a review and comment opportunity for privately owned utility companies, including Comcast Cablevision of Sacramento and the Roseville Telephone Company. This review and comment opportunity allows service purveyors to assess potential future demands for utility services and the existing access to potential development sites on a project-by-project basis.

Funding for cable and telephone service is collected through company billings and developer fees applied to the extension of infrastructure to new development. Normally, the purchase of materials and labor costs associated with infrastructure extension are paid by the utility company. However, trenching costs attributable to Comcast Cablevision of Sacramento are the responsibility of the developer. Interior wiring material is supplied to the developer by the utility free of charge. Installation of interior wiring is not provided.

According to the Roseville Telephone Company, the purchase of materials, labor, and trenching costs associated with infrastructure extensions are paid by the utility company. Trenching costs would most likely be paid by the developer initially but would be reimbursed by Roseville Telephone Company. The utility provides one-inch conduit to each dwelling unit. Interior wiring is the responsibility of the developer or home-owner. Roseville Telephone Company can provide interior wiring service; however, their services would need to be separately contracted and are not included when providing service to new development.

4.11.18 Regulatory Setting

Federal and State

There are no specific federal or state regulations pertaining to the provision of cable television or telephone services.

Local

City of Roseville

The City of Roseville General Plan includes goals and policies for private utilities. Refer to Appendix C for a complete list of all applicable City goals and policies.

4.11.19 Impacts and Mitigation Measures

Methods of Analysis

The demand for cable television and telephone services needed to serve the increased Roseville resident population resulting from development of the WRSP Area and Remainder Area is anticipated as the development of the SOI Amendment Area occurs. For this analysis, each dwelling unit is anticipated to require one cable television and one telephone connection. One cable television and telephone connection is anticipated per each gross acre of nonresidential use, excluding parks and open space. While estimates of the additional new cable television and telephone services are calculated, the impact on the service providers is qualitatively discussed.

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area would

- Generate a demand for cable television and telephone service that requires extension of these facilities in a manner that could adversely affect the environment.

Impacts

IMPACT 4.11-14:	INCREASED DEMAND ON CABLE TELEVISION AND TELEPHONE SERVICES.	
Applicable Policies and Regulations:	None identified	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None Required	None Required
Significance after Mitigation:	Less Than Significant	Less Than Significant

West Roseville Specific Plan/Remainder Plan

The WRSP Area is within the service areas of Roseville Telephone Company (Surewest Communications) and SBC/Pacific Bell. The exchange boundary between Roseville Telephone and SBC/Pacific Bell runs directly through the WRSP Area in a north/south direction from below Pleasant Grove Boulevard west of the Village Center north to Pleasant Grove Creek and then east to the Plan Area boundary. One or more private cable television companies will provide service to the WRSP Area.

Distribution lines to individual parcels will be extended from existing infrastructure adjacent to the WRSP Area and will occur as development takes place. The appropriate providers will review delivery of telephone and cable television services to individual projects in the WRSP at the time of proposal.

The development of the SOI Amendment Area, including the WRSP Area and Remainder Area would create an increased demand for cable television and telephone services. Assuming that each dwelling unit would require one cable television and one telephone connection, the SOI Amendment Area would require at a minimum 15,833 new residential connections. The cable television needs of the SOI Amendment Area would be served by Comcast Cable of Sacramento and Roseville Telephone Company or other SBC Service providers would service the area's phone needs. Similarly, assuming that each acre of all nonresidential land, excluding road right-of-ways, parks and open space, would require a cable television and telephone connection, the SOI Amendment Area would require another 468 nonresidential connections for a total of approximately 16,300 connections.

As stated above, these additional services would be provided by private utility companies and would be funded through developer fees and future customer billing. In addition, the utility companies would be given the opportunity to review and comment on any proposed development requiring new service. All phone and cable lines would be installed in roadway rights-of-way, so there would not be any environmental impacts beyond the construction impacts identified in this EIR. Therefore, the demand for cable television and telephone services is considered a **less-than-significant** impact**.**

Mitigation Measures

None required.

4.12 HYDROLOGY, WATER QUALITY, AND GROUNDWATER

4.12.1 Introduction

This section addresses potential hydrologic effects related to drainage, groundwater resources, and water quality in the SOI Amendment Area. Site characteristics such as regional and local drainage and flooding conditions and water quality are described based on site-specific information developed for the WRSP Area and Remainder Area and published technical information, as indicated in footnoted references. The primary sources of information referenced for this section regarding drainage and flooding conditions are listed below:

- *Fiddyment-Westpark Property Master Plan Drainage Analysis*, Wood-Rodgers Inc. (June 2003)
- *Groundwater Impact Analysis*, MWH (June 2003)
- *City of Roseville Detention Basin Project FEIR* January 2003 (SCH No. 2002072084)

These documents are available for review at the City of Roseville Permit Center, 311 Vernon Street, Roseville, California.

Comments raised in response to the Notice of Preparation (see Appendices A and B) identified the following topics of interest and/or concern: increase in stormwater peak flows and volume and potential for downstream flooding, particularly for higher frequency small storm events; development in the floodplain; and urban contaminants in stormwater runoff, including sedimentation effects. These issues are addressed in this section.

Issues related to the availability of water supply and potential environmental effects related to the use of existing and planned supplies are addressed in Section 4.11.2,Public Utilities, Water.

As discussed in Chapter 1, Introduction, this EIR evaluates the impacts of the project, which would include a Sphere of Influence Amendment and annexation of the WRSP Area to the City, at a project-specific level. Because a sphere amendment is the only action proposed for the Remainder Area (that portion of the SOI Amendment Area outside of the WRSP Area), a program-level analysis is provided for the full SOI Amendment. In order to conduct the analysis, development assumptions are made for the Remainder Area (see Chapter 2, Project Description, for details). Figure 1-1 (SOI Amendment Area) in Chapter 1, Introduction, identifies the boundaries of the SOI Amendment Area, WRSP Area, and Remainder Area.

As discussed in Chapter 4 of this EIR, Environmental Analysis, minor changes have been made to the proposed land uses for the WRSP since publication of the NOP. Overall the total amount of open space increased by 34.9 acres, primarily along the western boundary of the WRSP Area. However, the total amount of area to be disturbed is very similar to the prior land use plan. The open space corridors along Pleasant Grove Creek and Curry Creek have not changed. For these reasons, impacts related to hydrology and water quality would be reduced relative to the project described in the NOP. These differences do not affect the conclusions of this EIR, which analyzes hydrology and water quality based on the project described in Chapter 2.

4.12.2 Environmental Setting

Regional Surface Water Hydrology

The SOI Amendment Area is situated within the Pleasant Grove Creek and Curry Creek watersheds in the Sacramento Valley. The Pleasant Grove Creek watershed originates in the lower foothills of Placer County northeast of the SOI Amendment Area. The Pleasant Grove Creek watershed totals approximately 45 square miles, ranging in elevation from approximately 300 feet near Loomis to approximately 45 feet in Sutter County.[388] Approximately 10,000 acres of watershed discharge upstream of the SOI Amendment Area.[389] Pleasant Grove Creek flows west into Pleasant Grove Creek Canal, approximately seven miles downstream of the Roseville City limits.[390] The headwaters of Curry Creek are located about three-quarters of a mile east of Fiddyment Road. The Curry Creek watershed totals approximately 16.5 square miles and slopes from east to west. The elevation in the upper watershed is approximately 120 feet, decreasing to approximately 45 feet inSutter County.[391] Figure 4.12-1 illustrates regional hydrology.

The two watersheds drain to the Cross Canal watershed, which encompasses approximately 292 acres in Placer and Sutter counties. Pleasant Grove Creek flows into the Cross Canal in Sutter County, and through an extensive levee network into the Sacramento River just south of its confluence with the Feather River, approximately 14 miles west of Roseville.[392] In addition to Pleasant Grove Creek and Curry Creek, other large creeks in the Cross Canal watershed include Coon Creek, Auburn Ravine, and Markham Ravine.

[388] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 7.
[389] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 39.
[390] Rosewood Environmental Engineering, Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California, August 1999, page 11.
[391] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 7.
[392] Rosewood Environmental Engineering, Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California, August 1999, page 11.

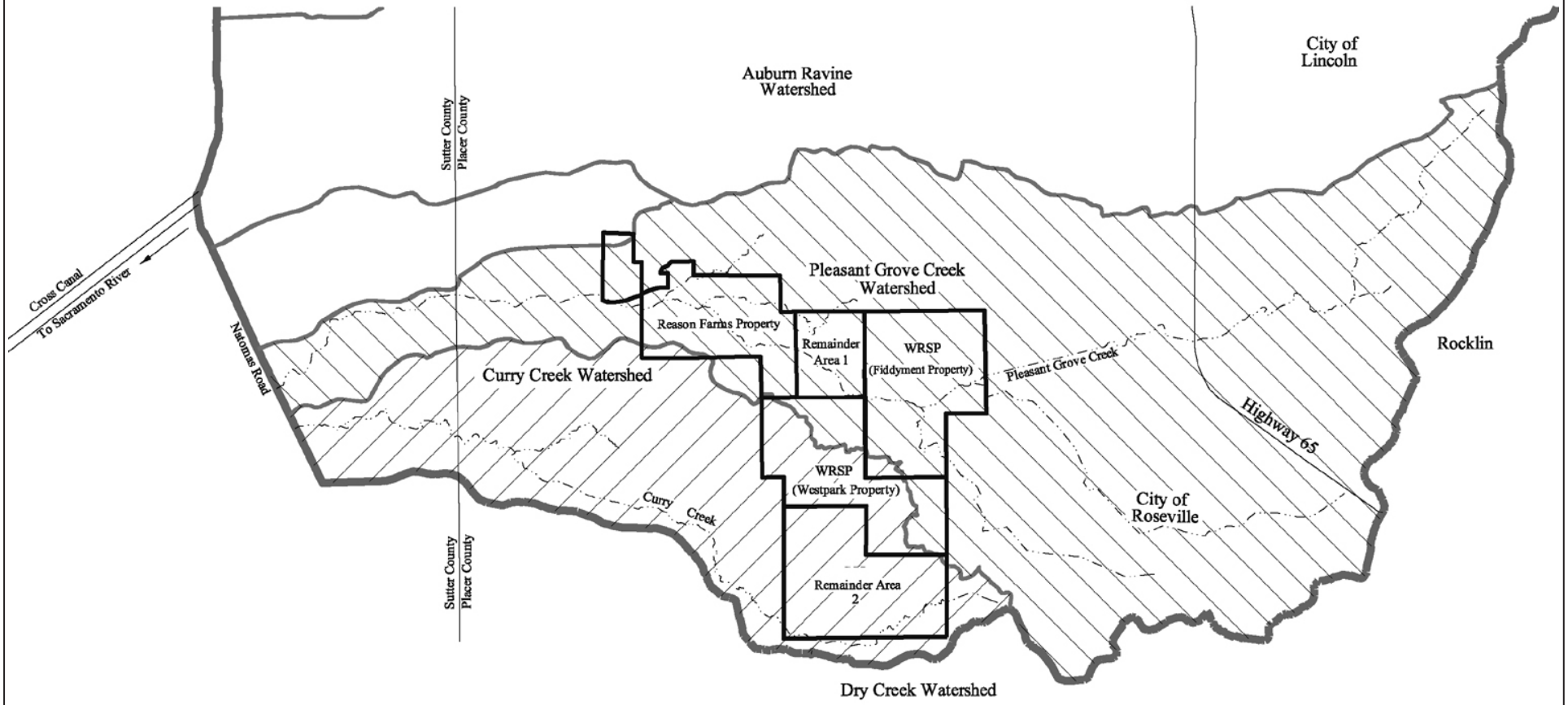


FIGURE **4.12-1**

Regional Hydrology

Not to Scale

10659-00

Source: Wood Rogers

City of Roseville

EIP ASSOCIATES

The Cross Canal watershed is within the Sacramento River Basin, which covers approximately 26,500 square miles and is bound by the Sierra Nevada to the east, the Coast Ranges to the west, the Cascade Range and Trinity Mountains to the north, and the Delta-Central Sierra area to the south. The Sacramento River is the principal river in the basin. The principal tributaries to the Sacramento River include the Pit and McCloud rivers, which join the Sacramento River from the north, and the Feather and American rivers, which are tributaries from the east.[393] The average runoff from the Basin is estimated to be 21.3 million acre-feet per year.[394]

West Roseville Specific Plan Drainage

The 3,162-acre WRSP Area is located within the Pleasant Grove and Curry Creek watersheds. The Fiddyment Ranch portion of the WRSP Area within the Pleasant Grove Creek watershed incorporates approximately 1,622 acres. The Westpark portion of the WRSP Area contributes an additional approximately 412 acres to the Pleasant Grove watershed.[395] The shed area also includes the Pleasant Grove Wastewater Treatment Plant (PGWWTP) site. Approximately 1,070 acres of the Westpark portion of the WRSP Area is within the Curry Creek watershed. A small portion (approximately 56 acres) of the Fiddyment Ranch property discharges to the Curry Creek watershed through the northeast corner of the Westpark property.[396]

The main branch of Pleasant Grove Creek flows east to west through the Fiddyment Ranch portion of the WRSP Area. The main branch of Pleasant Grove Creek extends approximately 4,000 feet (0.76 mile) through the site. The South Branch of Pleasant Grove Creek connects with the main branch on the east side of the WRSP Area. An additional tributary of Pleasant Grove Creek is located west of the WRSP Area in the Remainder Area north of Phillip Road.[397]

Another small ephemeral creek crosses the southwest corner of the Fiddyment Ranch property in the WRSP Area, passing the Old Homestead. The creek is referred to as Coyote Creek because it passes a hill referred to by the Fiddyment family as Coyote Hill. This creek reportedly rarely has water in it, although it is within the 100-year floodplain of Pleasant Grove Creek.[398]

[393] City of Roseville, North Roseville Specific Plan Phase 3 Draft Environmental Impact Report, May 2000.
[394] EIP Associates, Stoneridge Specific Plan EIR, December 3, 1997.
[395] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, Table 6.
[396] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 26.
[397] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 39.
[398] Rosewood Environmental Engineering, Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California, August 1999, page 11.

Kaseberg Creek drains to Pleasant Grove Creek, converging with the main branch of Pleasant Grove Creek near the center of the Fiddyment Ranch property.[399] It begins near Kaseberg School southeast of the Fiddyment Ranch property near Village Green Drive and flows through a corrugated arched pipe (super span) under Fiddyment Road. From there, it meanders in a north-northwesterly direction for about 5,000 feet and joins with the north branch Kaseberg Creek about 1,000 feet upstream of the Kaseberg Creek confluence with Pleasant Grove Creek. The north branch begins east of the Phillip Road/Fiddyment Road intersection, enters through a concrete box culvert under Fiddyment Road, and meanders approximately 8,000 feet north-northwest.[400] It is a minor drainage within the WRSP Area, generating less than 200 cubic feet per second (cfs) during a 10-year storm event. Kaseberg Creek reportedly varies in width from 8 to 24 feet.[401]

The Del Webb Sun City development, adjacent to the WRSP Area, east of Fiddyment Road, contributes a significant amount to the watershed through Kaseberg Creek and the South Branch of Pleasant Grove Creek. The existing underground drainage located within Blue Oaks Boulevard will require the existing outfall to be relocated with future WRSP improvements.[402]

Existing Bridges

Two existing bridges currently cross the main branch of Pleasant Grove Creek in the WRSP Area. One off-site bridge crosses approximately 300 feet west of the Fiddyment Ranch boundary and provides access to an existing residence north of Pleasant Grove Creek. The Fiddyment Road bridge crossing at Pleasant Grove Creek consists of two 18-foot-high arch culverts. The two bridge crossings overtop during extreme flooding events.[403] Phillip Road crosses a tributary to Pleasant Grove Creek in the southwest corner of the Fiddyment Ranch property. There is a 4-foot by 8-foot box culvert and an existing maintenance road that also crosses the tributary with two 42-inch culverts to an existing pump station.[404]

Remainder Area Drainage

The Remainder Area is within the Pleasant Grove Creek and Curry Creek watersheds. An additional tributary of Pleasant Grove Creek flows west of the WRSP Area through the Remainder Area north of Phillip Road. The southern Remainder Area north of Baseline Road is within the Curry Creek watershed.

[399] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 8.
[400] Rosewood Environmental Engineering, Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California, August 1999, page 13.
[401] Rosewood Environmental Engineering, Phase I Environmental Site Assessment, Fiddyment Property, Roseville, California, August 1999, page 13.
[402] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 8.
[403] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 38.
[404] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 39.

Soil Types and Runoff Characteristics

The type of soil in the watershed, including its infiltration and runoff characteristics, is a major factor in determining the rate and amount of stormwater runoff. There are four hydrologic soil groups defined by the Natural Resources Conservation Service (NCRS). Type A soils are characterized by high infiltration. Based on NRCS mapping, these soils are not present in the SOI Amendment Area. Type B, C, and D soils exhibit moderate to poor infiltration with moderate to high runoff potential, respectively.

West Roseville Specific Plan

Soil Group D (poor infiltration and high runoff potential) accounts for approximately 89 percent of the soil cover in the WRSP Area. Areas of greatest runoff potential (Soil Group B) are generally restricted to soil units along stream channels (see Figure 4.6-2 [Soil Types] in Section 4.6 [Geology, Soils, and Seismicity]).

Remainder Area

Soil Group D is present in about 80 percent of the soil cover in the Remainder Area. Less than 7 percent of the soil types are classified as Group B (moderate infiltration and runoff potential).

Stormwater Runoff Rates and Volumes

Peak Flow Runoff

Pre-development peak flow rates and stormwater runoff volumes are presented in Table 4.12-4 through Table 4.12-7 in Impact 4.12-1 through Impact 4.12-3 to allow for comparison to post-development rates.

Several developments upstream of the SOI Amendment Area east of State Route 65 have either constructed or have planned regional detention storage basins along Pleasant Grove Creek and its tributaries to mitigate post-development peak flows in the area. Each of these basins contributes to delays in downstream peak flows at the WRSP Area boundary.[405]

Stormwater Volume

Sutter County and Reclamation District 1001 has expressed concerns with flooding as a result of increased stormwater volume generated by development in Placer County. In response to Sutter County's concerns, Placer County and the cities of Roseville, Rocklin, Lincoln, and Auburn participated in the *Auburn Ravine, Coon, and Pleasant Grove Creek Watershed Study*. The study, which was prepared in

1993, examined the Pleasant Grove Creek watershed and other regional drainages that affect Sutter County. The study concluded that all planned future development in Placer County, if unmitigated, could increase flows by less than 0.3 feet (3.6 inches) along tributary streams and approximately 0.1 feet (1.2 inches) in the ponding area upstream of the Cross Canal. These increases would inundate several hundred additional acres in Sutter County during a major flood.[406] Conclusions of this study recommended a combination of regional and local detention and retention basins, adoption of a regional floodplain management plan, and grading ordinances and policies.[407] To date, the City of Roseville has collected about $10 million in fees to construct a regional retention basin. These fees will be used to purchase a 1,700-acre property west of the SOI Amendment Area (Reason Farms) on which the regional retention basin will be constructed and operated on Pleasant Grove Creek. The location of the Reason Farms property is shown on Figure 4.12-1.

Preliminary estimates of the amount of retention that would be needed to reduce potential flooding impacts at downstream locations (e.g., Placer-Sutter County line) were developed in 1999-2000 for the Pleasant Grove Creek watershed (*Pleasant Grove Creek Watershed Mitigation Fee* report prepared by Civil Solutions). The analysis used to estimate stormwater runoff volume was based on long-duration storms within the City of Roseville with development in place. The most recent analysis indicates that approximately 2,350 acre-feet of storage volume would be required to mitigate the increase in the amount (volume) of stormwater runoff for existing, entitled, and planned future projects in Roseville. Although the SOI Amendment Area is currently outside the City limits, runoff volumes for the WRSP Area and Remainder Area were included in the 2,350 acre-feet volume for purposes of developing a conceptual basin design and storage capacity.

Only a portion of the Reason Farms (about 560 acres) would contain the retention basin facilities. The project area would be managed by the City of Roseville as public open space and would accommodate other opportunities such as habitat enhancement and restoration projects. Although it is unlikely that farming would continue at the site, it is possible that adjacent owners with existing farming operations may consider portions of the site to be viable for rice farming or grazing as an extension of their existing operations. Portions of the site not used for retention could be sold by the City to adjacent landowners. It is also possible that the basin site could remain fallow.[408] The City published a Draft EIR for the retention basin facility in October 2002 (SCH No. 2002072084). The EIR analyzed construction and operation of full

[405] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 29.
[406] Placer County Flood Control and Water Conservation District, Auburn Ravine, Coon, and Pleasant Grove Creeks Flood Mitigation, June 1993, page ES-3.
[407] CH2MHILL, Auburn Ravine, Coon, and Pleasant Grove Creeks Flood Mitigation, Volume 1, June 1993.
[408] City of Roseville, Final Environmental Impact Report for the City of Roseville Retention Basin Project (SCH No. 2002072084), p.3-41.

buildout of the retention basin to a capacity of 2,350 acre-feet and related features (e.g., maintenance/access roads, pumping facilities). The Final EIR was certified and the Reason Farms Retention Basin project was approved in January 2003.

100-Year Floodplain

The Federal Emergency Management Agency (FEMA) published a Flood Insurance Rate Map (FIRM) for Pleasant Grove Creek in 1998. The mapping delineates the boundary of the 100-year floodplain along Pleasant Grove Creek and designates the floodplain as Zone A (no base flood elevations determined). Detailed mapping showing cross-sections and base flood elevations ends at the City of Roseville-Placer County corporate limits near Fiddyment Road.

In conjunction with development of the WRSP Area and associated drainage study, hydraulic analysis was used to identify water surface elevations in the 100-year floodplain along Pleasant Grove Creek through the Fiddyment Ranch property in the WRSP Area and approximately three miles downstream of the Remainder Area for the main branch and off-site tributaries (see Methods of Analysis, below). The boundaries of the 100-year floodplain in the SOI Amendment Area are shown in Figure 4.12-2 (On-Site Drainage Improvements and 100-Year Flooodplain).

West Roseville Specific Plan

The extent of the 100-year floodplain in the WRSP Area is shown on Figure 4.12-2. Within the WRSP Area, the 100-year floodplain is primarily associated with the existing tributaries of Pleasant Grove Creek east and south of the WRSP Area, and Curry Creek.

Remainder Area

As shown on Figure 4.12-2, the 100-year floodplain within the Remainder Area is primarily associated with the existing tributaries of Pleasant Grove Creek. The Reason Farms property, located west of the Remainder Area, includes an additional 100-year floodplain designation for Pleasant Grove Creek and an additional tributary north of the main branch. Several areas of the Reason Farms property were altered by rice farming within the floodplain. [409] The City of Roseville is developing additional detailed 100-year floodplain information for the location of the regional retention basin that will be located within the Reason Farms property, and the reach of Pleasant Grove Creek that runs west through the Reason Farms property to the Sutter-Placer County line.

[409] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 40.

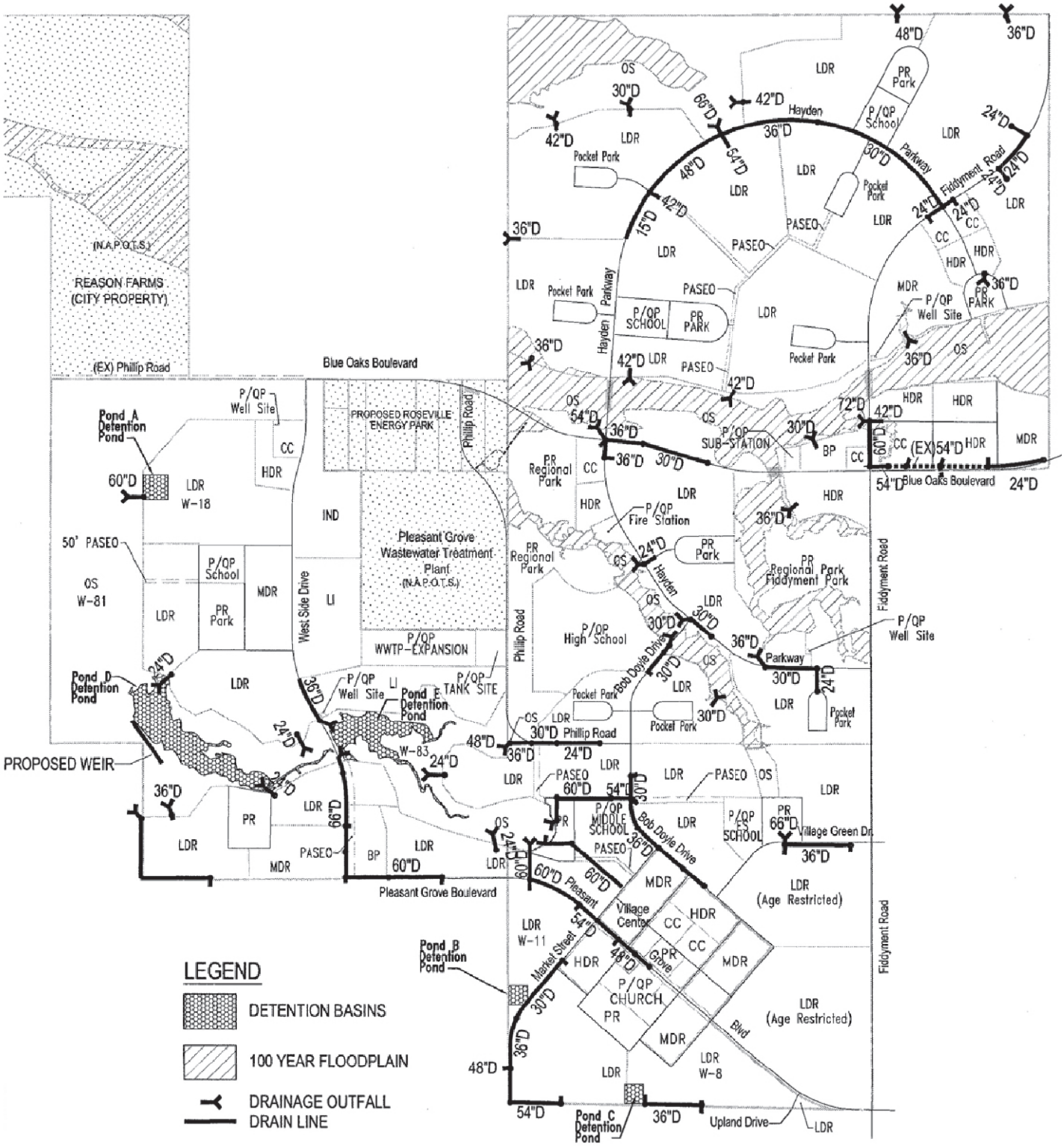


FIGURE **4.12-2**

On-Site Drainage Improvements and 100-Year Floodplain

Not to Scale

10659-00

Source: West Roseville Specific Plan 2003

City of Roseville

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Surface Water Quality

Surface water quality in the SOI Amendment Area can generally be characterized by surrounding land uses. The historical land use along Pleasant Grove Creek along the segment and tributaries that pass through the SOI Remainder Area has been agricultural, primarily for grazing and pasture. Typical constituents in runoff from pasturelands would include nitrogen, phosphorus, and coliform bacteria. Based on such uses, typical pollutant concentrations in runoff under existing conditions could be estimated to be 3.0 milligrams per liter (mg/l) Total Kjeldahl Nitrogen, 0.3 mg/l phosphate, 0.02 mg/l lead, and 0.05 mg/l zinc.[410]

Stormwater runoff from urban development upstream of the SOI Amendment Area (e.g., City of Roseville, Rocklin/Loomis, and a small portion of Lincoln) is assumed to contain urban pollutants such as oil, grease, metals, nitrogen and phosphorus from fertilizers, pesticides and herbicides, bacteria, and sediment. Nearby industrial uses (e.g., Hewlett-Packard and NEC to the east) could also contribute levels of heavy metals, petroleum, hydrocarbons and other constituents through runoff. Table 4.12-1 (Typical Concentrations of Nonpoint Source Pollutants in Stormwater) lists typical concentrations of chemical indicators of urban pollutants that could be expected in stormwater runoff.

Table 4.12-1 Typical Concentrations of Nonpoint Source Pollutants in Stormwater

Land Use	Typical Nonpoint Source Pollutant (pounds per acre/year of runoff)			
	Biological Oxygen Demand (BOD_5)	Suspended Solids	Total Phosphorus	Total Nitrogen
Residential	24	545	0.32	4.0
Commercial	98	745	0.75	9.0
Recreation	1.3	420	0.06 to 0.2	2.3 to 4.4
Cropland, pasture and unused rural land	2.1 to 30	420 to 10,000	0.09 to 0.64	0.9 to 23
Residential	24	545	0.32	4.0

SOURCE: City of Roseville, Del Webb Specific Plan Draft Environmental Impact Report, 1993

Comprehensive stormwater runoff water quality testing has not been performed to characterize existing water quality as a result of urban runoff, but the City of Roseville is initiating a program to demonstrate compliance with recently adopted stormwater quality regulations (see Regulatory Setting, below), which would include reviewing land use types to determine which urban pollutants may be affecting water quality.[411]

[410] City of Roseville, Del Webb Specific Plan Draft Environmental Impact Report, September 1993, page 14-7.
[411] Kelye McKinney P.E. Senior Civil Engineer, City of Roseville Engineering Division, personal communication, June 5, 2002.

Treated tertiary effluent from the Pleasant Grove PGWWTP scheduled for operation in Fall/Winter 2003 will be directly discharged to a segment of Pleasant Grove Creek that passes through the WRSP Area. The PGWWTP outfall to the creek is located northeast of the PGWWTP in an area designated in the WRSP as Open Space between proposed Hayden Parkway and Phillip Road, as illustrated by Figure 4.12-3 (Location of PGWWTP Outfall in WRSP). As part of the design and permitting effort for the PGWWTP, surface water samples were collected in 1999-2000 at two locations upstream and downstream of the SOI Amendment Area: Pump Station 1, approximately where Woodcreek Oaks Boulevard crosses Pleasant Grove Creek, and Harris Bridge, where Pleasant Grove Boulevard in Sutter County crosses Pleasant Grove Creek. Samples were analyzed for pH, Dissolved Oxygen (DO), turbidity (NTU), and temperature. The results are listed in Table 4.12-2 (Pleasant Grove Creek Sampling Results). Tertiary-treated water from the Dry Creek WWTP will be discharged to Pleasant Grove Creek in the Diamond Creek area via recycled water lines that pass through the area.

Table 4.12-2 Pleasant Grove Creek Sampling Results

	pH	Dissolved Oxygen	Turbidity (NTU)	Temperature (°C)
Pump Station 1 (upstream)				
Minimum	6.8	1.5	1.7	1.8
Maximum	9.0	15.3	419.0	35.1
Average	7.5	8.2	16.3	15.2
Harris Bridge (downstream)				
Minimum	6.9	1.1	0.5	3.0
Maximum	9.4	14.12	85.0	34.4
Average	7.6	8.4	12.1	16.4

SOURCE: City of Roseville EUD, July 2002.

As noted in Section 4.7 (Biological Resources), Pleasant Grove Creek is an intermittent stream with no existing cold-water fishery and limited warm water fishery value. Pleasant Grove Creek's value for water-contact recreation is limited, due to the lack of water in the creek during the summer.

In their review and amendment of the State of California's assessment of surface waters, the EPA listed Pleasant Grove Creek as a Section 304 (1) "Long List" water body. The 304 (1) "Long List" designates waters that are impaired because narrative or numeric objectives are violated or beneficial uses are impaired.[412]

[412] Environmental Science Associates, Roseville Regional Wastewater Treatment Service Area Master Plan Draft Environmental Impact Report, May 1996. page 7-3.

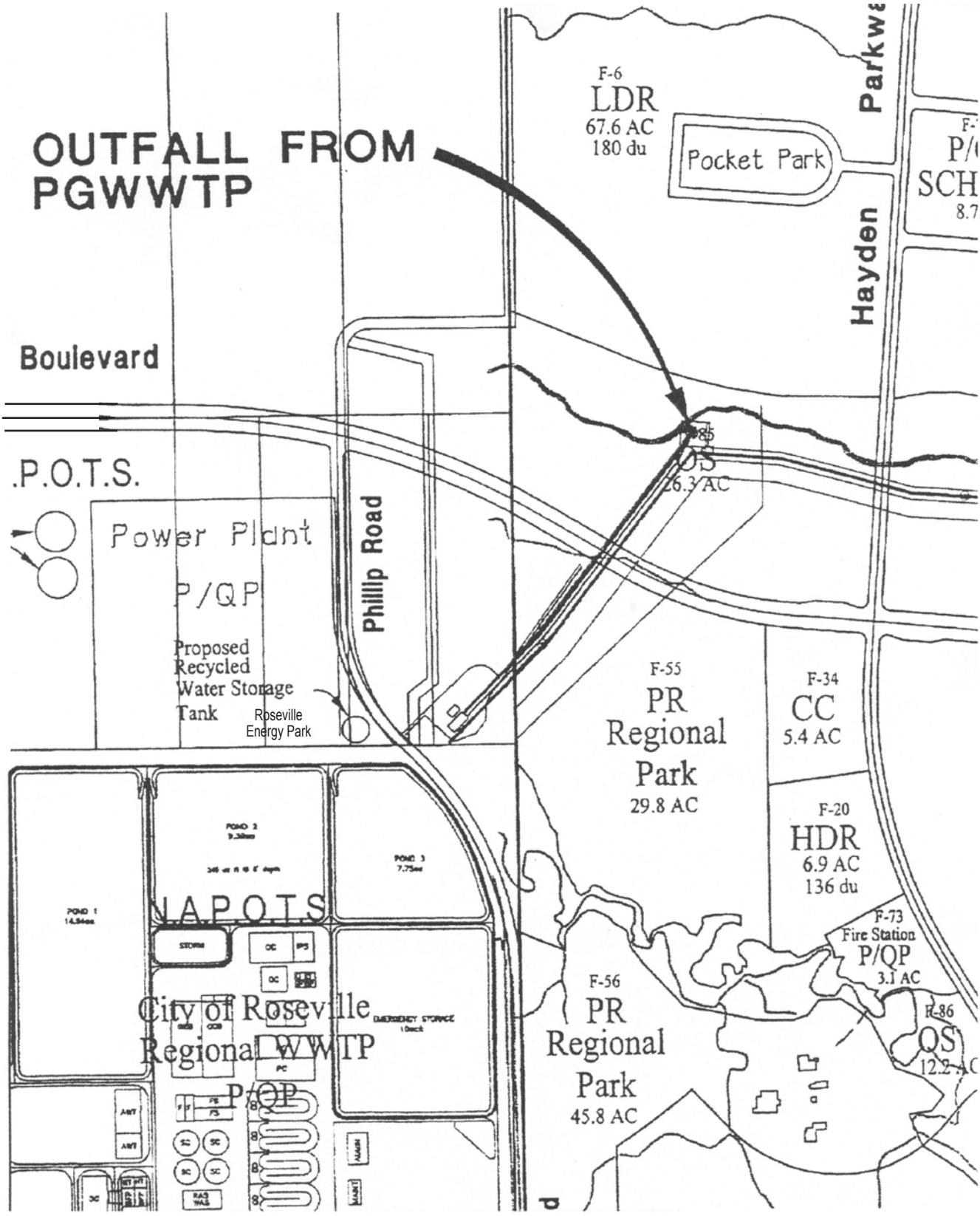


FIGURE **4.12-3**
Location of PGWWTP Outfall in WRSP

Not to Scale

10659-00

***Source*:** City of Roseville

City of Roseville

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The City of Roseville does not discharge any wastewater effluent into Kaseberg or Curry creeks, but the creeks receive surface runoff from the urban development east and southeast of the SOI Amendment Area. Specific water quality data are unavailable for Kaseberg Creek and Curry Creek at this time.[413]

Groundwater

Regional Characteristics

Placer, Sutter, and Sacramento counties are situated in the North American sub-basin of the Sacramento Valley Groundwater Basin. The North American subbasin is defined by the Bear River on the north, the Feather River on the west, the Sacramento River on the south, and a north/south line extending from the Bear River south to Folsom Lake that passes about 2 miles east of Lincoln. The sub-basin encompasses 351,000 acres (548 square miles). Drainage in the sub-basin is west-southwest at an average 5 percent grade.[414]

The eastern boundary of the sub-basin (approximately 5.5 miles east of the SOI Amendment Area) is the approximate edge of the alluvial basin, where little or no groundwater flows into or out of the groundwater basin from the Sierra Nevada. The western portion of the sub-basin, which includes the SOI Amendment Area, is a flat flood basin for the Bear, Feather, Sacramento, and American Rivers and several small east/side tributaries. Most of the groundwater is produced in the northern portion of the sub-basin (north of the SOI Amendment Area).[415]

Various geologic formations comprise the water-bearing deposits that underlie the region. These formations include an upper aquifer system (referred to Aquifer 1 in this EIR) consisting of the Victor, Fair Oaks, and Laguna Formations, and a lower aquifer system (referred to as Aquifer 2) consisting primarily of the Mehrten Formation. These formations are typically composed of lenses of interbedded sand, silt, and clay interlaced with coarse-grained stream channel deposits. These deposits form a wedge thickening from east to west at a fairly constant rate to a maximum thickness of 2,000 feet near the Sacramento River.[416]

Groundwater occurs in an unconfined to semi-confined state throughout the region. A confined aquifer state occurs in aquifers that have overlying stratum of low permeability. Groundwater under a confined

[413] Kelye McKinney P.E. Senior Civil Engineer, City of Roseville Engineering Division, personal communication, June 5, 2002.
[414] Department of Water Resources, California Groundwater -- Bulletin 118, Draft Basin Descriptions, Groundwater Basin No.5-21.64. April 2003, pages 1-2, http://www.waterplan.water.ca.gov/groundwater/118index.htm.
[415] Department of Water Resources, California Groundwater -- Bulletin 118, Draft Basin Descriptions, Groundwater Basin No.5-21.64 April 2003, pages 1-2. http://www.waterplan.water.ca.gov/groundwater/118index.htm.

state is described in terms of its piezometric surface elevation rather than a water surface elevation. The piezometric surface elevation is the elevation of water within a piezometer or well that is screened only in the confined or semi-confined aquifer. The groundwater surface elevation is the elevation of water in an unconfined aquifer. Semi-confinement can occur in local areas, and the degree of confinement typically increases with depth. Groundwater in the Victor, Fair Oaks, and Laguna Formations is typically unconfined. The deeper Mehrten Formation, a major source of groundwater, exhibits semi-confined conditions.[417]

Groundwater Use, Wells, and Water Levels

The use of groundwater is part of the City of Roseville's current water supply planning, but is only used as short-term emergency supply during dry years. The City's Water Forum Agreement (WFA) includes the extraction of up to 7,400 acre-feet per year (AF/yr) of groundwater during the drier and driest year WFA hydrologic year types.[418]

Currently the City has three groundwater wells and a fourth well (the Diamond Creek well) under construction that are maintained primarily for backup water supply. Additional wells are planned to improve reliability. The City participates in a regional groundwater management plan with PCWA.[419]

There are several groundwater wells in the vicinity of the SOI Amendment Area. These wells include the three of the four wells identified above, domestic wells used by homes in the unincorporated areas of the County, and agricultural wells including approximately 12 groundwater wells at the Reason Farms property to the west of the SOI Amendment Area that are used for irrigation.[420] There is also a groundwater well located at the PGWWTP.

The Reason Farms property west of the SOI Amendment Area is currently under agricultural production for rice. About 6,483 AF/yr of groundwater extracted from the aquifer underlying the property is estimated to be applied for irrigation purposes each year on approximately 1,080 acres. The major portion of that water is lost to evapotranspiration, while a small amount returns to the groundwater through deep percolation.[421]

[416] MWH, Groundwater Impact Analysis for Proposed Reasons Farms Land Retirement Plan, Draft June 2003, p.3-1.
[417] MWH, Groundwater Impact Analysis for Proposed Reasons Farms Land Retirement Plan, Draft June 2003, p.3-1.
[418] MWH, Groundwater Impact Analysis for Proposed Reasons Farms Land Retirement Plan, June 2003, p.1-1.
[419] City of Roseville, 2002 Urban Water Management Plan, July 11, 2002. p. 7-8
[420] City of Roseville, Final Environmental Impact Report for the City of Roseville Retention Basin Project (SCH No. 2002072084), p. 3-43.
[421] MWH, Groundwater Impact Analysis for Proposed Reasons Farms Land Retirement Plan, Draft June 2003, p.4-4.

Groundwater elevations within and around the SOI Amendment Area have been monitored by Department of Water Resources for several decades. There are three groundwater wells in the DWR monitoring network in and immediately adjacent to the SOI Amendment Area. One well (11N/6E/18P005M) is located adjacent to Pleasant Grove Creek just west of Fiddyment Road in the WRSP Area. A second well (11N/6E/30F002M) is east of the WRSP Area along Kaseberg Creek southeast of the intersection of Fiddyment and Phillip Roads. The third well (11/N5E/23B001M) is located on City-owned land north of the WRSP Area.[422] Data for Well 18P005M indicate rising groundwater elevations since about 1977, which could be attributable to a decrease in agricultural pumping or recharge into a subsurface channel system.[423] In 2002, the groundwater elevation ranged from 45 to 47 feet above mean sea level (msl).[424] Well F002M, which has not been monitored since 1993, shows almost stable groundwater elevations since about 1980.[425] Reported groundwater elevations in that well in 1993 were -17 to -20 feet msl.[426] The westernmost well, 23B001M, has also been stable since about 1980, and decreased agricultural water use in the area suggests water table levels are rising.[427] In 2002, groundwater elevations ranged from a low of -24 feet msl in November to a high of -17 feet msl in April.[428]

Aquifer Storage and Recovery (ASR) Program

The City is evaluating the feasibility of developing an Aquifer Storage and Recovery (ASR) program. Under such a program, the surface water would be injected into the aquifer in wet years for storage, and then the City's backup groundwater wells would pump the stored water in dry years. The City has a demonstration project currently underway at the Diamond Creek well to evaluate the feasibility of using planned wells for injection and storage of treated water.

Groundwater Recharge

Under natural conditions, groundwater recharge results from precipitation and infiltration of excess irrigation water. However, only lands with sufficiently permeable soil permit percolation. The rate and

[422] Gasch & Associates, Inc., Preliminary Geophysical and Geological Review of the Groundwater Potential of the Proposed Westpark/Fiddyment Development, Placer County, California, March 2000, Plate 1.
[423] Gasch & Associates, Inc., Preliminary Geophysical and Geological Review of the Groundwater Potential of the Proposed Westpark/Fiddyment Development, Placer County, California, March 2000, p.3.
[424] California Department of Water Resources, Water Data Library http://wdl.water.ca.gov/gw/admin/main_menu_gw.asp), accessed February 7, 2003.
[425] Gasch & Associates, Inc., Preliminary Geophysical and Geological Review of the Groundwater Potential of the Proposed Westpark/Fiddyment Development, Placer County, California, March 2000, p.3.
[426] California Department of Water Resources, Water Data Library http://wdl.water.ca.gov/gw/admin/main_menu_gw.asp), accessed February 7, 2003.
[427] Gasch & Associates, Inc., Preliminary Geophysical and Geological Review of the Groundwater Potential of the Proposed Westpark/Fiddyment Development, Placer County, California, March 2000, p.3.
[428] California Department of Water Resources, Water Data Library http://wdl.water.ca.gov/gw/admin/main_menu_gw.asp), accessed February 7, 2003.

quantity of water reaching the saturation zone depends on factors that include the amount and duration of precipitation, soil type, moisture content of the soil, and vertical permeability of the unsaturated zone.

According to U.S. Geological Survey (USGS) computer model estimates, approximately 1.6 percent of the total natural recharge in the Sacramento Valley basin can be attributed to the Placer County subarea.[429] USGS studies indicate the Bear River recharge subarea located north of the Placer County subarea also contributes some recharge to the Sacramento Valley groundwater basin. The USGS estimates 2.3 percent of the total recharge can be attributed to the Bear River subarea.[430] Thus, the Placer County and Bear River subareas combined represent approximately 5 percent of total recharge to the Sacramento Valley groundwater basin under natural conditions. This would not be considered significant compared to the contribution from recharge areas in the northern Sacramento Valley, which account for approximately half of all recharge in the Sacramento Valley groundwater basin.[431] Consequently, the SOI Amendment Area is not considered a significant recharge source in the regional context.

As noted in Section 4.6 (Geology, Soils, and Seismicity), rock units in the SOI Amendment Area consist of the Riverbank and Turlock Lake Formations and alluvium deposited during the Pliocene and Pleistocene. Geologists who classified and described these formations also refer to these rock units as "Older Alluvium." The Older Alluvium ranges from 100 to 650 feet thick and is moderately permeable.[432] However, as also noted in Section 4.6, soils containing hardpan occupy over half the valley on the east side of the Sacramento River (which includes the SOI Amendment Area), and these severely restrict downward movement of water. Clayey soils also impede percolation.[433]

Although moderately permeable rock units underlie the SOI Amendment Area, Soil Group D (poor infiltration) accounts for approximately 89 percent of the soil cover in the WRSP Area and about 80 percent in the Remainder Area. Although the SOI Amendment Area is undeveloped (with the exception of the Fiddyment Ranch area), the abundance of Group D soils throughout the entire SOI Amendment Area limits groundwater recharge under existing conditions.

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[429] California Department of Water Resources, Evaluation of Ground Water Resources: Sacramento Valley, Bulletin 118-6, August 1978, Figure 6A and Table 2, pages. 114 through 117.
[430] California Department of Water Resources, Evaluation of Ground Water Resources: Sacramento Valley, Bulletin 118-6, August 1978, Figure 6A and Table 2, pp. 114 through 117.
[431] California Department of Water Resources, Evaluation of Ground Water Resources: Sacramento Valley, Bulletin 118-6, August 1978, Figure 6A and Table 2, pp. 114 through 117.
[432] Department of Water Resources, Sacramento Valley Groundwater Basin, North American Subbasin, http://www.waterplan.water.ca.gov/groundwater/118index.htm, September 2001, pages 1-2
[433] California Department of Water Resources, Evaluation of Ground Water Resources: Sacramento Valley, Bulletin 118-6, August 1978, p. 67.

Groundwater Quality

Regional Groundwater Quality

On a regional basis, there are areas of good-quality groundwater and marginal-quality groundwater in the North American sub-basin. Generally, groundwater quality in the southern part of the basin where the SOI Amendment Area is located is characterized as good, although some contaminated areas do exist within a few miles of the SOI Amendment Area. The former McClellan Air Force Base, approximately five miles south-southwest, and the Union Pacific Railyards in Roseville, approximately two miles southeast, have been identified as major sources of groundwater contamination. Elevated levels of total dissolved solids (TDS)/specific conductance, chloride, sodium, bicarbonate, boron, fluoride, nitrate, iron, manganese, and arsenic have also been identified as contributing to poorer water quality conditions in some locations. The highest levels of TDS have been reported in an area extending just south of Nicholas to Verona, between Reclamation District 1001 and the Sutter Bypass, located over 10 miles west of the SOI Amendment Area. Some wells in that area have exceeded 1,000 mg/L of TDS.[434]

Local Groundwater Quality

Based on California DWR well records, there are several groundwater wells in the SOI Amendment Area.[435] Wells on the Fiddyment Ranch property have not been sampled for water quality.[436] However, two wells north and south of Pleasant Grove Creek in the WRSP Area were tested in 2001 for general minerals in conjunction with pump tests.[437] Data from the wells are presented in Table 4.12-3 (Westpark/Fiddyment Ranch Groundwater Wells Sampling Results [July 2001]).

Groundwater quality data available from Diamond Creek well, located adjacent to the WRSP Areaa are expected to be representative of the quality of the groundwater under the SOI Amendment Area. These data, along with water quality data collected form the City's other wells, indicate that groundwater in the area contains high levels of minerals and salts, but generally contains low levels of metals. The pH is neutral. Nitrate contamination appears in some areas. Nonetheless, the groundwater could be treated to potable water standards.[438]

[434] Department of Water Resources, http://www.waterplan.water.ca.gov/groundwater/118index.htm, September 2001, pages 4-5
[435] Anderson Consulting Group, Westpark Fiddyment Well Investigation, Step Drawdown Pumping Test and Well Sampling Results, September 13, 2001.
[436] John Tallman, Signature Properties, personal communication, June 27, 2002.
[437] Anderson Consulting Group, Westpark Fiddyment Well Investigation, Step Drawdown Pumping Test and Well Sampling Results, September 13, 2001.
[438] MWH, Groundwater Impact Analysis for Proposed Reasons Farms Land Retirement Plan, June 2003. p.5-5 and 5-6.

Table 4.12-3 Westpark/Fiddyment Ranch Groundwater Wells Sampling Results (July 2001)

Well Location	North of Pleasant Grove Creek	South of Pleasant Grove Creek
pH	7.1	7.3
Electrical Conductivity (µS/cm)	320	370
Copper (µg/L)	5.7	7.9
Iron (µg/L)	210	120
Sodium (µg/L)	23,000	24,000
Calcium (µg/L)	20,000	20,000
Chloride (mg/L)	37	38
Sulfate (mg/L)	<4	<4
Total Hardness (mg/L)	NA	130
Hydroxide (mg/L)	<5	<5
Carbonate (mg/L)	<5	<5
Bicarbonate (mg/L)	92	117
Total Dissolved Solids (mg/L)	160	180
Nitrate (mg/L)	1	2.3
Nitrate (mg/L)	<0.02	<0.02
Magnesium (µg/L)	12,000	13,000
Zinc (µg/L)	24	90

4.12.3 Regulatory Setting

The following is a summary of the regulatory context under which issues associated with water quality, drainage, and on-site and off-site flooding are managed at the federal, State, and local level.

Federal

Floodplain Development

The Federal Emergency Management Agency (FEMA) is responsible for determining flood elevations and floodplain boundaries based on U.S. Army Corps of Engineers studies. FEMA is also responsible for distributing the Flood Insurance Rate Maps (FIRMS), which are used in the National Flood Insurance Program (NFIP). These maps identify the locations of special flood hazard areas, including the 100-year floodplain.

FEMA allows non-residential development in the floodplain. However, construction activities are restricted within the flood hazard areas depending upon the potential for flooding within each area. Federal regulations governing development in a floodplain are set forth in Title 44, Part 60 of the Code of Federal Regulations (CFR).

Water Quality

Section 303 of the federal Clean Water Act (CWA) requires states to adopt water quality standards for all surface water of the United States. Where multiple uses exist, water quality standards must protect the most sensitive use. Water quality standards are typically numeric, although narrative criteria based upon biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards.

Title 40 of the Code of Federal Regulations (40 CFR) includes U.S. Environmental Protection Agency (EPA) regulations to implement the National Pollutant Discharge Elimination System (NPDES) permit system, which was established in the CWA to regulate municipal and industrial discharges to surface waters of the U.S. Each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that EPA must consider in setting effluent limits for priority pollutants.

Two types of non-point source discharges[439] are controlled by the NPDES program – non-point source discharges caused by general construction activities and the general quality of urban runoff in municipal stormwater systems (either as part of a combined system or as a separate system in which runoff is carried through a developed conveyance system to specific discharge locations). The goal of the NPDES non-point source regulations is to improve the quality of stormwater discharged to receiving waters to the "maximum extent practicable" through the use of best management practices (BMPs). BMPs can include the development and implementation of various practices including educational measures (workshops informing public of what impacts result when household chemicals are dumped into storm drains), regulatory measures (illicit discharge detection and elimination), public involvement measures (label storm drain inlets as to impacts of dumping on receiving waters) and structural measures (filter strips, grass swales and detention ponds).

The 1987 amendments to the CWA directed the federal EPA to implement the stormwater program in two phases both of which are currently effective. Phase 1 addressed discharges from large (population 250,000 or above) and medium (population 100,000 to 250,000) municipalities and certain industrial and construction activities. Phase 2 addresses all other discharges defined by EPA that are not included in Phase 1 and construction activities that affect more than one acre.

[439] Nonpoint sources are generally diffuse and originate over a wide area rather than from a definable point. Nonpoint pollution often enters receiving water in the form of surface runoff rather than by pipelines or discrete conveyances.

State

Urban Water Quality

The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) are responsible for ensuring implementation and compliance with the provisions of the federal CWA, California's Porter-Cologne Water Quality Control Act, and NPDES programs. Along with the SWRCB and RWQCB, water quality protection is the responsibility of numerous water supply and wastewater management agencies, as well as City and County governments, and requires the coordinated efforts of these various entities.

The SOI Amendment Area is situated within the jurisdiction of the Central Valley Region of the RWQCB (Region 5). The Central Valley RWQCB (CVRWQCB) has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction. Water quality objectives for the Sacramento River and its tributaries (e.g., Pleasant Grove Creek and Curry Creek) are specified in *The Water Quality Control Plan for the Sacramento River Basin and San Joaquin River Basin* (Basin Plan) prepared by the CVRWQCB in compliance with the federal CWA and the State Porter-Cologne Water Quality Control Act.[440] The Basin Plan establishes water quality objectives and implementation programs to meet stated objectives and to protect the beneficial uses of water in the Sacramento-San Joaquin River Basin. Because the City of Roseville (including the SOI Amendment Area) is located within the CVRWQCB's jurisdiction, all discharges to surface water or groundwater are subject to the Basin Plan requirements.

Beneficial uses for the Sacramento River include municipal and domestic supply, agricultural supply, recreation, and aquatic and wildlife habitat. These beneficial uses also apply to Pleasant Grove Creek and its tributaries and Curry Creek because these streams ultimately discharge to the Sacramento River.

Construction Site Runoff Management

The SWRCB adopted a State-wide general NPDES permit for stormwater discharges associated with construction activity (General Permit) in August 1999. Performance standards for obtaining and complying with the General Permit are described in NPDES General Permit No. CAS000002, Waste Discharge Requirements, Order No. 99-08-DWQ. The General Permit was modified in April 2001 (SWRCB Resolution No. 2001-046) to require permittees to implement specific sampling and analytical procedures to determine whether the BMPs used at the construction site are effective.

[440]California Regional Water Quality Control Board, Central Valley Region, The Water Quality Control Plan (Basin Plan) [for] the Sacramento River Basin and the San Joaquin River Basin, 4th edition, 1998.

Under the General Permit, the State requires that any construction activity affecting one acre or more must obtain a General Construction Activity Stormwater Permit Waste Discharge Identification Number. Development within the SOI Amendment Area would be required to comply with the General Permit.

Examples of typical construction BMPs included in the Stormwater Pollution Prevention Plan (SWPPP) include: using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water; developing and implementing a spill prevention and cleanup plan; installing traps, filters, or other devices at drop inlets to prevent contaminants from entering storm drains; and using barriers, such as straw bales or plastic, to minimize the amount of uncontrolled runoff that could enter drains or surface water. To comply with water quality standards, the discharger must, as needed, apply Best Available Technology (BAT) standards to the project. These BATs would include structural controls designed specifically to prevent and or reduce construction-related water pollution.

Urban Runoff Management

The City of Roseville is currently required to operate under a NPDES Municipal Stormwater Permit. Although Roseville did not meet the federal EPA criteria for Phase 1 compliance at the time that permit was adopted, the City of Roseville is regulated for Phase 2 requirements. The Phase 2 State Municipal Stormwater Permit requires the City to develop, implement, and enforce a stormwater management program.

The SWRCB was required to issue general permits for the NPDES Phase 2-regulated jurisdictions by December 8, 2002, and operators of Phase 2 jurisdictions were required to obtain permit coverage by March 10, 2003. On January 28, 2003, U.S. Court of Appeals for the Ninth Circuit published an opinion (decision) remanding three aspects of the Phase 2 Rule concerning the issuance of Notice of Intent (NOIs) under the rule's general permitting scheme (*Environmental Defense Center v. U.S. Environmental Protection Agency*). As a result of this decision, the SWRCB decided to delay issuance of the State permit. The new submittal date for permit applications for automatically designated traditional MS4 such as the City of Roseville was August 8, 2003.[441] However, despite this ruling the City was already in compliance with the Phase 2 program. In March, 2003, the City met the submittal requirements by preparing and submitting a Storm Water Management Program (SWMP) to the CVRWQCB prior to the March 10, 2003 deadline. Although the City has not received its Phase 2 NPDES permit, it has begun implementing the SWMP. Components of the City's SWMP are summarized below. Development in the WRSP Area and

[441] State Water Resources Control Board, Phase II Small Municipal Separate Storm Sewer (MS4) Program, SWRCB website, accessed February 11, 2003.

Remainder Area will be required to incorporate SWMP requirements into facilities design and during operations.

City of Roseville Stormwater Management Plan

The City's SWMP (dated March 2003) outlines a comprehensive set of priorities, activities, and strategies that comprise the City's minimum control measures (MCMs) and BMPs intended to address the Phase 2 requirements, with the goal of reducing pollutants in stormwater to the maximum extent practicable. The SWMP was completed under consideration of guidance from a Citizen's Advisory Committee, as well as input and direction of City staff. The components of the SWMP will become effective when the State issues the permits. However, the City has begun implementing the SWMP.

The SWMP identifies the activities to implement the following six minimum control measures required under the General Permit: public outreach, public involvement, illicit discharge detection and elimination, construction site runoff, new development and redevelopment, and municipal operations. Some typical types of outreach may include public outreach, stormwater articles, creekside educational programs, and other community events. Public meetings and presentations, a hotline, interactive website, volunteer water quality monitoring groups, and community cleanup days are some of the elements of the public involvement component.

Some typical sources of illicit discharges that the program is designed to control include non- residential car washes, radiator flushing, unauthorized industrial discharges and chemical spills. The plan to detect and address non-stormwater discharges is developed in consideration of the staff and resources available. In general, however, it includes an inspection program to identify problems, locate sources, take corrective action, and provide documentation. For the construction site runoff element, the City will implement and enforce a program to reduce pollutants in runoff from construction sites one acre or larger. Review of site/construction plans, site inspections, enforcement, and sanctions to ensure compliance are major components of this program.

The City will have as part of the overall program a new development and redevelopment minimum control measure for post-construction controls that will include BMPs to address both the quality and quantity issues associated with new development. In general, this program will provide a regulatory mechanism, structural and non-structural control strategies, and long-term operation and maintenance of controls. Section 3.5 of the preliminary SWMP includes specific guidance for developing technical criteria for volume and flow control design parameters for structural controls such as detention ponds, vegetative areas, and runoff pretreatment. The City plans to develop a new ordinance for post-construction runoff controls requiring post-construction controls on new development and establishing

the authority to inspect privately owned controls approved by the City and maintenance of the controls. Stormwater controls would initially be evaluated during plan checks, then observed and inspected by City staff. Prior to final approval, the owner of the stormwater control structure will be required to submit an operations and maintenance manual and a proposed maintenance schedule. Additional detail on post-construction controls is provided in the SWMP, which is available for review at City offices or on the City's website (http://www.ci.roseville.ca.us/).

The City already has many elements of the municipal operations control measure in place. As part of the SWMP, the program will be further developed to include appropriate controls to address the specific needs and characteristics of the City's municipal operations. The City will update or prepare Standard Operating Procedures (SOPs), which will provide BMPs that can be implemented within the City municipal operations context to reduce stormwater pollutants. The SOPs will continue to be updated as BMPs change or improve.

The March 2003 SWMP includes a Monitoring and Reporting (MRP) section per the NPDES Phase 2 regulations. The SWMP is scheduled to start implementation of MRP in the City's 2003/04 fiscal year. The MRP data collection is anticipated to increase in frequency over the course of the Phase 2 permit term. The SWMP is targeted to reach full implementation by fiscal year 2007/08.[442]

Construction Dewatering

Clean or relatively pollutant-free, construction-related wastewater that poses little or no threat to water quality may be discharged directly to surface water under certain conditions. In addition to the State General Construction Activity Permit, the CVRWQCB has also adopted a general NPDES permit for short-term discharges of small volumes of wastewater from certain construction-related activities. Permit conditions for the discharge of these types of wastewaters to surface water are specified in "General Order for Dewatering and Other Low-Threat Discharges to Surface Waters" (Order No. 5-00-175, NPDES No. CAG995001). Discharges may be covered by the permit provided they are (1) either four months or less in duration, or (2) the average dry weather discharge does not exceed 0.25 million gallons per day. Construction dewatering, well development water, pump/well testing, and miscellaneous dewatering/low-threat discharges are among the types of discharges that may be covered by the permit. The general permit also specifies standards for testing, monitoring, and reporting, receiving water limitations, and discharge prohibitions.

[442] City of Roseville, *Stormwater Management Plan*, March 2003, p. 63-64.

Groundwater Management Plan

California Water Code sections 10750 *et seq*. (Assembly Bill 3030, approved by the California Legislature in 1992) allows certain local agencies whose service areas overlie a State-designated groundwater basin to develop and implement groundwater management plans (GMP). The purpose of the GMP is to outline the role of the local agency in managing the local groundwater resources to maximize the water supply and to protect the quality of the supply. The Placer County Water Agency is the lead agency for the West Placer Groundwater Management Plan. The plan area includes Roseville, Rocklin, and the unincorporated portion of west Placer County west of State Route 65. The West Placer Groundwater Management Plan describes groundwater level and land use trends, water needs and availability, and agency efforts to stabilize groundwater. Continued monitoring of groundwater levels and quality, evaluating groundwater safe yield, and identifying groundwater recharge and conjunctive use opportunities are key elements of the plan.[443]

Local

City of Roseville General Plan

The City of Roseville General Plan includes several policies relating to hydrology and water quality. Please see Appendix C for a complete list of all applicable City goals and policies.

WRSP Measures

The WRSP designates creek corridors and their associated floodplains for preservation as open space. Detention basins are proposed within the Curry Creek open space corridors to provide detention storage for a 100-year, 24 hour peak event. All drainage facilities will be designed and constructed in conformance with the City's Improvement Standards, PCFCNCD Storm Water Management Manual, and the Operations and Maintenance Plan (required under the Clean Water Act 404 Permit), which will include requirements to direct drainage away from vernal pool habitat.

City of Roseville Development Standards

The City of Roseville Planning and Public Works Departments maintain policies and guidelines regarding grading, erosion control, inspection, and permitting. Section 16.20.040 of the Roseville Zoning Ordinance regulates stockpiling and grading and addresses conditions under which permits and grading plans are required. Section 16.20.070 identifies grading plan performance standards. Section 16.20.020 requires that all grading be performed in accordance with either City of Roseville Improvement

[443] Placer County Water Agency, Draft West Placer Groundwater Management Plan, June 23, 1998.

Standards or Chapter 16 of the Zoning Ordinance, whichever is more restrictive. The City of Roseville Department of Public Works Improvements Standards require that a grading permit be obtained prior to grading activities. At that time the Applicant must submit, for review and approval, Improvement and/or Grading Plans along with a site-specific erosion and sedimentation control plan. Slopes (banks) along the creek channels must be designed with proper slope protection to prevent soil erosion and channel-bank undercutting. The City has also adopted standards that would apply to projects within public right-of-way or easements, (Section 111 of the Construction Standards, May 2001). The City's NDPES Phase 2 SWMP proposes revisions to existing City standards to enhance stormwater quality control BMP requirements.

Section 10 of the City of Roseville Improvement Standards identifies hydrologic and hydraulic methods to determine peak flow rates and criteria for identifying appropriate design and capacity for storm drainage infrastructure. Design criteria include requirements for channels and outfall design, cross culverts, inlet and outlet structures, and piping materials. Section 101 of the City's Construction Standards addresses drainage infrastructure requirements on public rights-of-way or easements.

City of Roseville Floodplain Development

To prevent exacerbating flooding conditions and to limit exposure of residents and structures to potential harm and/or damage, the City of Roseville General Plan contains policies that restrict land uses and development within the 100-year floodplain. Chapter 9.80 of the Roseville Municipal Code identifies floodplain development criteria and restrictions that implement FEMA requirements. Section 10 of the City's Improvement Standards also identify criteria for development within the 100-year floodplain.

Placer County Flood Control and Water Conservation District

The Placer County Flood Control and Water Conservation District (PCFCWCD) was formed by Senate Bill 1312, effective August 23, 1984. The PCFCWCD formulates regional strategies for flood control management. In 1990, the PCFCWCD developed a Stormwater Management Manual (SWMM) that presents policy, guidelines, and specific criteria for evaluating hydrologic and hydraulic conditions associated with new development within the context of regional stormwater issues. The manual was revised in 1992, 1994, and in 1997. The PCFCWCD SWMM policies were considered during preparation of the project drainage study and in the drainage analysis in this section, as further discussed in "Methods of Analysis," below. The City references the use of PCFCWCD SWMM criteria in Section 10 (Drainage) of the City's Improvement Standards.

Water Forum Agreement

The Water Forum Agreement (WFA) is the result of the efforts of a diverse group of community leaders formed in 1994 to formulate principles for a regional solution to future water supply needs. Participants in the Water Forum have developed two coequal objectives:

- Provide a reliable and safe water supply for the region's economic health and planned development to the year 2030
- Preserve the fishery, wildlife, recreational, and aesthetic values of the Lower American River

Water Forum stakeholders have developed an integrated package of actions that will meet the two co-equal objectives mentioned above. Each element of the package is necessary for a regional solution to work. There are seven elements:

1. Increased Surface Water Diversions
2. Actions to Meet Customers' Needs While Reducing Diversion Impacts on the Lower American River in Drier Years
3. An Improved Pattern of Fishery Flow Releases from Folsom Reservoir
4. Lower American River Habitat Management Element, which also Addresses Recreation in the Lower American River
5. Water Conservation Element
6. Groundwater Management Element
7. Water Forum Successor Effort

Purveyor Specific Agreements (PSA) have been developed that describe in detail how each of the seven elements will be implemented by the respective purveyors, such as the City of Roseville, PCWA, and SJWD. These PSAs are compiled into a Memorandum of Understanding that each stakeholder's authorizing body has executed. In return for signing the final Water Forum agreement, water purveyors receive regional support for water supply projects, including site-specific infrastructure development.

In January 1999, the Sacramento City-County Office of Metropolitan Water Planning published the Draft Environmental Impact Report (EIR) for the WFA. The WFA EIR addresses the impacts and mitigation measures that the area stakeholders would need to comply with in order to implement the water supply program outlined in the WFA. The Final EIR for the WFA was certified on November 23, 1999. The findings of that EIR, and the accompanying Water Forum Action Plan, outlined a program whereby water delivery could be supplied to area stakeholders through the year 2030, provided that a permanent pumping plant is constructed at Auburn and the Sacramento River Water Reliability Project diversion

facilities are constructed. The WFA EIR is hereby incorporated by reference into this EIR. The full WFA EIR is available for review at the City of Roseville Permit Center, 311 Vernon Street, Roseville, California.

4.12.4 Impacts and Mitigation Measures

Methods of Analysis

Drainage and Flooding

Technical data to support the analysis of potential drainage and flooding impacts of the Proposed Project were developed by Wood Rodgers Inc. and presented in the *Fiddyment-Westpark Property Master Plan Drainage Analysis* (June 2003), which is available for review at the City of Roseville Permit Center, 311 Vernon Street, Roseville, California. The baseline for the analysis in this section is existing conditions. Cumulative impacts on Hydrology and Water Quality are addressed in Chapter 5 (CEQA Considerations).

Stormwater Peak Flows

Wood-Rodgers Inc. used the HEC-1 watershed computer program version 4.1 to analyze the 2-, 10-, 25-, 100-, and 500-year peak flow pre-project and post-project conditions for the Pleasant Grove Creek and Curry Creek watersheds. Although the model assumptions were refined to reflect the location of the WRSP Area and Remainder Area within the context of each of the two drainage sheds, the same methods were applied to both the WRSP and the Remainder Area because portions of each area drain to both Pleasant Grove Creek and Curry Creek.

The HEC-1 models used the Pleasant Grove Creek and Curry Creek watershed portions of the 1993 *Pleasant Grove, Auburn, and Coon Creek Flood Mitigation Plan* to estimate peak flows throughout the watersheds. Wood Rodgers Inc. modified the HEC-1 models to include standard methodologies from the PCFCDWCD SWMM. These methodologies included Kinematic Wave for overland flow, Muskingum-Cunge routing for channels, and Modified Puls routing for channel storage and/or detention routing. The model has been updated to reflect development that has accrued since 1993 in the watershed. The off-site watershed sub-basins were consistent with the size (square miles) and estimated impervious surface assumed in the 1993 *Pleasant Grove, Auburn, and Coon Creek Flood Mitigation Plan*. Only the sub-shed areas within the WRSP Area were modified to reflect proposed land uses.

Pleasant Grove Creek

The HEC-1 modeling for the Fiddyment Ranch portion of the WRSP Area within the Pleasant Grove Creek watershed incorporates 1,622 acres. A 265.0-acre portion of the Westpark property also discharges

through the Fiddyment Ranch property, and additional runoff is generated from a portion of the Westpark property west of the Fiddyment Ranch property adjacent to Phillip Road. The shed area also includes the new wastewater treatment plant site. Off-site contributing basins in the Pleasant Grove Creek watershed were identified and added to the model as if the contributing areas were discharging through the WRSP.

The entire Pleasant Grove Creek watershed was analyzed because the HEC-1 watershed model was previously developed and provided by the PCFCWCD and because the main branch of Pleasant Grove Creek flows from east to west through the middle of the Fiddyment Ranch portion of the WRSP Area.

Four individual HEC-1 models were developed for the Pleasant Grove Creek watershed:

- *Model 1—Existing (Pre-Development) Peak Flow Runoff*: Off-site Pleasant Grove Creek watershed (existing condition) and WRSP Area (Fiddyment Ranch and Westpark), including the northern portion of the Remainder Area within the Pleasant Grove Creek watershed, prior to development (existing condition)
- *Model 2—Post-Development Peak Flow Runoff*: Off-site Pleasant Grove Creek watershed (existing condition) and WRSP Area developed as proposed. This model identifies the project-specific impact stormwater runoff attributable to the proposed WRSP, including the portion of the Remainder Area that drains to Pleasant Grove Creek.
- *Model 3—Post-Development Cumulative Peak Flow Runoff (No Upstream Detention)*: Off-site Pleasant Grove Creek watershed (developed under General Plan buildout conditions, assuming upstream, off-site regional detention basins are *not* in place) and WRSP developed as proposed. This model identifies how the proposed WRSP contributes to the cumulative condition (without upstream detention)
- *Model 4—Post-Development Cumulative Peak Flow Runoff (With Upstream Detention)*: Off-site Pleasant Grove Creek watershed (developed under General Plan buildout conditions with upstream mitigation) and WRSP Area developed as proposed. Peak flows from this model were used to delineate the 100-year floodplain along Pleasant Grove Creek.

Curry Creek

With the exception of the 265.0-acre area noted above, most of the Westpark portion of the WRSP Area is within the Curry Creek watershed. A small portion (55.7 acres) of the Fiddyment Ranch property discharges to the Curry Creek watershed through the northeast corner of the Westpark property. For purposes of the drainage study, the 55.7-acre contribution from the Fiddyment Ranch portion was included in the Curry Creek analysis. As with the Pleasant Grove Creek watershed, off-site contributing basins for Curry Creek were identified and added to the model as if the contributing areas were discharging through the WRSP Area. The HEC-1 model was used to generate estimates of existing peak

flows, peak flows generated by development in the WRSP Area that discharges to the Curry Creek watershed, and peak flows with detention facilities in place to mitigate increases in flows.

Proposed basins that were identified in the drainage study (see Figure 4.12-2) to mitigate post-development peak flows below pre-existing levels for the Curry Creek watershed were analyzed based on the PCFCWCD SWMM Section VII, which requires mitigating the 2- to 100-year frequency storm events and reducing the objective project peak flows up to 90 percent of the pre-development levels. The objective flow is equal to the pre-development peak flow rate less 10 percent of the difference between the estimated on-site pre-development and post-development peak flow rates.

Floodplain Analysis

Wood Rodgers Inc. used the HEC-RAS version 3.0.1 (March 2001) to delineate the 10-year and 100-year water surface elevations and floodplain for Pleasant Grove Creek, Kaseberg Creek, and the Pleasant Grove Creek tributary in the WRSP Area and Remainder Area. The highest peak flows from each storm centering were used to designate the 100-year floodplain for Pleasant Grove Creek and tributaries.

The analysis assumed natural open channel conditions would not be altered. Because historical high water marks were not available, roughness coefficients through the main branch and tributaries were assumed based on field observation and previous studies in Placer County.

The Curry Creek analysis for developed conditions assumed that detention facilities and the berm were in place, as well as small areas of fill within the floodplain at roadway crossings (generally in areas where overbank flows would occur).

Stormwater Volumes

The 8-day 1986 storm event was applied to the Pleasant Grove Creek and Curry Creek watershed model to calculate estimated runoff volumes for the entire SOI Amendment Area, which includes the WRSP Area and the Remainder Area.

Stormwater Runoff Water Quality

The analysis of potential water quality effects was based on a qualitative comparison of pre-developed and post-developed land uses. It would be speculative to identify specific post-development water quality impacts that could occur because the actual amount or type of development that could occur within any given proposed land use and the specific types of water quality BMPs (both construction and operational) have not been determined at this stage of project development. However, it is conservatively assumed for purposes of evaluation in this EIR that new or additional stormwater runoff generated by

the Proposed Project is expected to contain some level of contaminants typically associated with urban development that could affect receiving water quality.

For purposes of developing a list of proposed BMPs for the WRSP, Wood Rodgers assumed the stormwater treatment devices in the WRSP would be designed to treat the "first flush" storm event. The first flush storm event equates to an approximately six-month design storm frequency over a 30-minute duration; however, this storm event is rarely quantified. The PCFCWCD SWMM includes criteria for stormwater quality treatment features that were considered in the development of the number and locations of water quality outfalls. The drainage features will need to be further modified, as necessary, to ensure compliance with State requirements established in the Phase 2 Municipal Stormwater General Permit as implemented through the City's Phase 2 SWMP.

Groundwater

Dry-Year Groundwater Supply Impact Analysis

Groundwater Impact Analysis Assumptions

The impact discussion incorporates the results of a groundwater impact analysis prepared by MWH. The *Groundwater Impact Report* is included in Appendix M. In the *Groundwater Impact Report*, MWH used the North American River and Sacramento County Combined Integrated Groundwater and Surface Water Model (IGSM) to simulate groundwater conditions. This model was originally developed for the American River Water Resources Investigation (ARWRI) and later updated by the American River Basin Cooperating Agencies for the Regional Water Master Plan. Additional information regarding this model is provided in Appendix M.

For the impact analysis, it was assumed that groundwater would be used only for the WRSP Area, because buildout of the Remainder Area would likely depend on implementation of the Sacramento River Water Reliability Project (also referred to as the Sacramento River Diversion Project) (see Impacts 4.11-1 and 4.11-2 in Section 4.11, Public Utilities). If that project is implemented, the City anticipates potential delivery of approximately 7,100 AF/yr of surface water supplies. Under such a scenario, the need for groundwater may be avoided even in the WSRP Area. However, the earliest anticipated date for operation of the Sacramento River Water Reliability Project is 2010. Therefore, assuming development of the WRSP represented the "worst-case" scenario for groundwater extraction in these years, the WSRP Area would only require 2,848 AF/yr. Therefore, this analysis is conservative.

The groundwater impacts described in the *Groundwater Impact Report* were defined as the incremental changes between the groundwater conditions corresponding to a baseline condition that does not include

development of the WRSP Area and groundwater conditions resulting after the WRSP Area has been developed. The following assumptions were made for the analysis of mitigating the dry-year groundwater use, which was assumed to be accomplished by fallowing land at the Reason Farms property:

- 1,080 acres fallowed,
- 6,483 AF/yr of groundwater extracted for existing irrigation demand,
- 2,632 AF/yr of groundwater return by deep percolation of irrigation water,
- 3,851 AF/yr of groundwater available for beneficial uses.

Groundwater Recharge

Groundwater recharge related to changes in impervious surfaces was analyzed qualitatively, based on published technical information that identifies groundwater recharge potential in the groundwater basin that underlies the SOI Amendment Area.

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the SOI Amendment Area would do any of the following:

- Substantially alter the existing drainage pattern in a manner that would either result in substantial erosion or siltation on or off site, or increase the rate or amount of surface runoff resulting in flooding on or off site
- Create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems
- Expose people or property to flood hazards by placing them in an area subject to inundation within the 100-year floodplain as defined by FEMA or additional site-specific floodplain maps
- Substantially degrade surface and/or groundwater quality due to increases in sediments, erosion and urban contaminants generated by construction and/or operation activities or violate any water quality standards or waste discharge requirements
- Substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table

Impacts

IMPACT 4.12-1:	CHANGES IN THE RATE OF STORMWATER RUNOFF (PEAK FLOWS) THROUGH THE DEVELOPMENT OF NEW IMPERVIOUS SURFACES.	
Applicable Policies and Regulations:	City of Roseville Improvement Standards PCFCWCD SWMM	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Significant
Mitigation Measures:	None required	MM 4.12-1 (Prepare site-specific drainage study)
Significance after Mitigation:	Less Than Significant	Less Than Significant

The Project Area is undeveloped at present. Development of residential and mixed uses in the Project Area would increase the amount of impervious surface coverage over that which currently exists. This increase in the amount of impervious surface coverage would increase the rate of surface runoff entering Pleasant Grove Creek and Curry Creek watersheds. In addition, development and grading would alter the existing runoff patterns and conveyance capacities on the properties.

Results of hydrologic and hydraulic modeling were used to identify appropriate drainage facilities in the WRSP to manage stormwater peak flows in accordance with City Improvement Standards and PCFCWCD SWMM requirements. Detention facilities to control peak flows are not recommended for locations that drain to Pleasant Grove Creek as described below for the WRSP because hydrologic modeling shows that such facilities could exacerbate downstream flooding conditions. However, detention basins are proposed for Curry Creek in the WRSP to mitigate downstream effects. The impacts associated with peak flow runoff and the effectiveness of the mitigation for both the WRSP Area and Remainder Area are discussed below.

Stormwater Runoff (Peak Flow Rates)

West Roseville Specific Plan

Increased stormwater flows and altered drainage patterns as a result of development in the WRSP could increase the potential for localized and regional flooding downstream of the WRSP. Consistent with Roseville General Plan Policy SB-6 and PCFCWCD SWMM standards, peak flow runoff rates were determined for the WRSP Area to identify drainage features that would be necessary to mitigate post-development flows. Pre-project and post-development peak flow rates for Pleasant Grove Creek and Curry Creek are presented in Table 4.12-4 (Pleasant Grove Creek Comparison of Pre-Development and

Post-Development Peak Flow Conditions) and Table 4.12-5 (Curry Creek Comparison of Pre-Development and Post-Development Peak Flow Conditions). Because the Pleasant Grove Creek watershed was modeled as one unit, these data reflect the contribution from the portion of the Remainder Area that drains to Pleasant Grove Creek.

Table 4.12-4 Pleasant Grove Creek Comparison of Pre-Development and Post-Development Peak Flow Conditions

Location	2-yr			10-yr			25-yr			100-yr		
	Ex (cfs)	Dev (cfs)	% Chg	Ex (cfs)	Dev (cfs)	% Chg	Ex (cfs)	Dev (cfs)	% Chg	Ex (cfs)	Dev (cfs)	% Chg
Pleasant Grove Creek at west end of WRSP	1,857	1,848	-0.5	4,449	4,384	-1.5	6,115	6,098	-0.28	8,162	8,124	-0.5
Pleasant Grove Creek at Brewer Rd.	2,052	2,012	-1.9	5,344	5,236	-2.0	7,034	6,933	-1.4	9,070	8,921	-1.6
Pleasant Grove Creek at Placer-Sutter County line	2,079	2,045	-1.6	5,289	5,200	-1.7	6,982	6,901	-1.2	9,021	8,882	-1.5
Pleasant Grove Creek at Cross Canal	2,076	2,047	-1.4	5,227	5,150	-1.5	6,897	6,837	-0.9	8,947	8,823	-1.4

NOTES:
cfs = cubic feet per section
Ex = existing (pre-developed) conditions
Dev = developed conditions on-site, no detention
% Chg = percent change (increase/reduction) in peak flow rates without detention
SOURCE: Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, Volume 1, Table 13, June 2003.

Table 4.12-5 Curry Creek Comparison of Pre-Development and Post-Development Peak Flow Conditions

Description	2-yr	10-yr	25-yr	100-yr
Peak Flow and Mitigation Rates for Curry Creek At WRSP Boundary				
Pre-Development Peak Flow Rate (cfs)[1]	218	501	662	910
Post-Development Unmitigated Peak Flow Rate (cfs)	362	723	936	1265
Post-Development Mitigated Peak Flow Rate (cfs)	204	386	532	747
Net Decrease from Pre-Development to Post-Development Peak Flow Rate (cfs)	14	115	130	163
Peak Flow and Mitigation Rates for Curry Creek at Sutter County/Placer County Boundary				
Pre-Development Peak Flow Rate (cfs)	833	1916	2669	3646
Post-Development Unmitigated Peak Flow Rate (cfs)	852	2031	2795	3799
Post-Development Mitigated Peak Flow Rate (cfs)	816	1879	2613	3575
Net Decrease from Pre-Development to Post-Development Peak Flow Rate (cfs)	17	37	56	71

NOTES:
1. cfs = cubic feet per second
SOURCE: Wood Rodgers, June 2003

Pleasant Grove Creek

Hydrographs of the modeled data show that peak flows in the lower portions of the Pleasant Grove Creek watershed are accelerated prior to peak flows from the upstream watershed. The 10-, 25-, and 100-

year frequency peak flow comparisons shown in Table 4.12-4 that compare pre-development conditions (Model 1) to post-development conditions (Model 2) for the Pleasant Grove Creek watershed indicate that development of the WRSP Area without detention in the areas that drain to Pleasant Grove Creek (i.e., Fiddyment Ranch and the portion of Westpark that drains to the Pleasant Grove Creek watershed) would reduce peak flows for all storm events. The reduction would occur because the peak WRSP discharge would occur before the most significant watershed peak, which would, in turn, reduce the potential for peak flows to coincide downstream that could cause or exacerbate flooding.

As noted in the Environmental Setting, several developments upstream east of State Route 65 in Lincoln and Rocklin have constructed or have planned regional detention storage basins along Pleasant Grove Creek and its tributaries. Based on a comparison of data generated for cumulative plus project upstream conditions with and without upstream detention (Model 3 and Model 4), each of these basins contributes to delays in downstream peak flows at the WRSP boundary. As a result, placing detention basins in the lower portions of the Pleasant Grove Creek watershed to manage all events, including the higher frequency (2-year) small storms, would likely delay peak flows such that the combined effect could actually increase peak flows downstream, which could increase flood risk to downstream properties. The conclusion for the Pleasant Grove Creek watershed is consistent with drainage studies prepared for projects located upstream in the City of Roseville. Therefore, based on the HEC-1 modeling estimates, it was determined that on-site stormwater detention storage is not recommended to manage peak flows in the Pleasant Grove Creek watershed.[444]

Curry Creek

With the Westpark portion of the WRSP Area located at the headwaters of the Curry Creek watershed, the HEC-1 analysis produced results indicating that detention is recommended at key locations to mitigate post-development peak flows below pre-development conditions. Results of the Curry Creek analysis are presented in Table 4.12-5. As shown in Figure 4.12-2, two detention basins (Basins A and E) would be located adjacent to and upstream of the proposed weir to mitigate the largest contribution from the Westpark property prior to discharging off-site. These basins would provide detention storage for a 100-year, 24-hour peak event. Basin E would use three 36-inch culverts and an approximately 6-foot-high weir structure at the project boundary to detain approximately 38 to 40 acre-feet. The proposed weir structure would be set at elevation 85.5 feet and would be approximately 250 feet long. The weir structure would be 30 feet wide to accommodate a future maintenance access road. Basin A would provide approximately 20.0 acre-feet of storage by using two 4-foot by 10-foot and two 5-foot by 10-foot

[444] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 29.

box culverts under West Side Drive. Table 4.12-5 shows the reduction in peak flows that would occur with the proposed detention features.

A third basin (Basin F) is recommended to mitigate peak flows in the northwest portion of the Westpark property (see Figure 4.12-2). The basin would store approximately 5 acre-feet for a 100-year, 24-hour storm event, and would be approximately 3 feet deep.

Based on the analysis, two small basins in the southern part of the WRSP Area drained by Curry Creek would also be required (Basins C and D on Figure 4.12-2). Each basin would provide approximately 8 to 9 acre-feet of storage. Alternatively, a larger detention basin near the main branch of Curry Creek within the SOI Amendment Area could be developed instead of Basins C and D. Either of these options would provide sufficient detention storage for peak flows from the Curry Creek portion of the WRSP.[445]

As a condition of project approval, the City Planning Department would require that the preliminary infrastructure to convey stormwater flows in the WRSP Area be identified. Prior to issuance of building permits, the final design for the storm drainage infrastructure would be reviewed by the City's Engineering Department to ensure it complies with City Improvement Standards.

In summary, peak flow comparisons indicate that the proposed basin storage and outflow design described above for Curry Creek would provide the required peak flow mitigation beyond the SWMM requirements.[446] As land uses are further refined, specific data for detention outflow structures would be developed when specific projects are proposed, consistent with SWMM and City of Roseville standards. Therefore, impacts for the WRSP Area would be **less than significant**.

Remainder Area

Pleasant Grove Creek

Stormwater from new impervious surfaces in the Remainder Area north of Phillip Road would be conveyed to Pleasant Grove Creek. As discussed for the WRSP, modeling for the Pleasant Grove Creek watershed (which includes the northern Remainder Area) indicated that detaining peak flows in basins would not be recommended because it could exacerbate downstream flooding by allowing downstream peak flows to coincide. When future land uses in the northern Remainder Area have been more clearly defined, site-specific hydrologic and hydraulic analyses would be performed as a condition of project approval (as required under City of Roseville General Plan Policy SB-6) and subject to review by the

[445] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 32.
[446] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 32.

PCFCWCD. As noted for the WRSP Area, the City would require that the preliminary infrastructure required to adequately convey stormwater flows in the Remainder Area draining to Pleasant Grove Creek be identified. Prior to issuance of building permits, the final design for the infrastructure would be reviewed by the City's Public Works Department, Engineering Division.

Curry Creek

New development in the southern Remainder Area would increase peak flows into Curry Creek. As discussed above, five detention basins (A, C, D, E, and F shown on Figure 4.12-2) would be developed for the WRSP Area to reduce peak flows generated by development in the southern portion of the WRSP Area that drains to Curry Creek. The capacity of the drainage facilities infrastructure in the WRSP has been sized to accommodate WRSP-generated runoff along with runoff from the Remainder Area.[447] As a result, flows from the Remainder Area, combined with the flows from the WRSP Area, would not exceed the capacity of the infrastructure, so the potential for a backwater effect that could cause upstream flooding in the WRSP Area would be minimized.

The location of a basin to serve the Remainder Area only and the size of that facility has not been determined. As a result, peak flows from the Remainder Area could increase the risk of downstream flooding. If the combined approach is used, and if the combined basin in the Remainder Area is not large enough to detain the combined WRSP Area and Remainder Area flows in accordance with PCFCWCD and City Improvement Standards drainage criteria, peak flows could be increased downstream, which could increase the risk of flooding downstream of the Remainder Area, or properties within the Remainder Area adjacent to the basin could be subject to increase risk of flooding. This is considered a significant impact**.** Implementation of MM 4.12-1 would reduce this impact to a **less-than-significant** level by ensuring peak flows from the Remainder Area do not increase the risk of downstream flooding in the Curry Creek watershed.

[447] Garth Gaylord, City of Roseville Public Works Department, personal communication, December 5, 2002.

IMPACT 4.12-2:	**INCREASE IN THE AMOUNT OF SURFACE RUNOFF, WHICH WOULD EXCEED THE CAPACITY OF EXISTING STORM DRAINAGE SYSTEMS AND INCREASE THE POTENTIAL FOR DOWNSTREAM FLOODING.**	
Applicable Policies and Regulations:	None Applicable	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.12-2 (Pay fair-share of Roseville regional stormwater retention facility improvements)	MM 4.12-3 (Retention policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

As discussed in Impact 4.12-1, development of the Proposed Project would increase impervious surfaces, which would generate additional stormwater runoff. This increase in the amount of impervious surface coverage would increase the volume of surface runoff entering Pleasant Grove Creek and Curry Creek watersheds over existing conditions. In addition, development and grading would alter the existing runoff patterns and conveyance capacities on the properties. Development of the project is estimated to generate an additional runoff volume of 685.5 acre-feet over the 8-day storm model (total combined stormwater flows from the WRSP Area and Remainder Area into Pleasant Grove Creek and Curry Creek).

The increase in runoff volume would need to be managed to minimize the risk of downstream flooding beyond the Project boundaries in the Cross Canal watershed. There are currently no existing retention basin facilities to manage stormwater volumes generated by the project. As discussed in the Environmental Setting, approximately 2,350 ac-ft of storage volume has been identified to mitigate the increase in the amount (volume) of stormwater runoff for existing and entitled projects in Roseville that ultimately discharge to the Cross Canal watershed. The storage volume (which would also provide capacity for projects discharging to the Curry Creek watershed) would be provided in the Pleasant Grove Creek watershed. The storage volume capacity includes stormwater runoff generated by the proposed Project. Flows from the portions of the Project Area that drain to the Curry Creek watershed are included in the volume estimates for the retention basin on Pleasant Grove Creek. Because Pleasant Grove Creek flows through the WRSP Area and would receive stormwater from the WRSP Area that would, in turn, be discharged directly to the retention basin, no other off-site retention basin conveyance improvement would be needed for the WRSP Area flows.

As noted in the Environmental Setting, a site for the return basin has been identified, and several million dollars have been collected through development fees to acquire the site. An EIR that evaluated full buildout of the regional retention basin to 2,350 acre-feet capacity, to which the project would incrementally contribute, was certified in January 2003. The City approved the regional basin project on January 22, 2003. The regional retention basin would be constructed regardless of whether the project is approved.

The impacts associated with stormwater volume at both the WRSP and Remainder Areas, and the effectiveness of potential mitigation measures, are discussed below.

West Roseville Specific Plan

Results of hydraulic modeling indicate that development of the WRSP Area is estimated to generate a total increase of 351.7 AF/yr of additional runoff volume (172.4 AF/yr from the Fiddyment portion and 179.3 AF/yr from the Westpark portion). The amount of runoff for the Fiddyment Ranch and Westpark properties individually is listed in Table 4.12-6 (Stormwater Runoff Volume Increase). The increase in runoff volume would need to be managed to minimize the risk of downstream flooding beyond the WRSP Area boundaries. The approved regional stormwater retention basin located on Pleasant Grove Creek west of the WRSP would be used to store flows from the WRSP Area during major flood events on the Sacramento River. When the basin is completed, no additional on-site or off-site conveyance infrastructure would need to be developed (other than the proposed water quality outfalls [see Impact 4.12-5]) to convey WRSP Area stormwater flows to the basin because the WRSP outfalls discharge directly to Pleasant Grove Creek. Although not yet constructed, the regional retention basin project has been approved, and would include capacity for WRSP stormwater flows. As such, the WRSP contribution would be **less than significant** because if the project is approved and funded, it will be constructed over 10 years so that at Buildout the retention basin should be completed, and capable of dealing with the stormwater flows.

Implementation of MM 4.12-2 would ensure a mechanism for determining the WRSP's proportionate contribution to development of the regional retention basin. To further reduce potential impacts MM 4.12-2 would ensure that if the regional detention center is not completed at Buildout, a funding mechanism for the construction of any necessary stormwater detention facilities is in place.

Table 4.12-6 Stormwater Runoff Volume Increase

Location	Total Area (acres)	Retention Volume Requirement (acre-feet)
Fiddyment Ranch	1,678.4	172.4
Westpark	1,483.6	179.3
WRSP Total	3,161	351.7
SOI Remainder Area No. 1 (north of Phillip Road)	667.0	67.6
SOI Remainder Area No. 2 (north of Baseline Road)	1,701.0	223.7
SOI Remainder Area Total	2,368	291.3
Total Retention Volume Requirement (WRSP + SOI)		643.0
Proposed Energy Park (included in modeling)	66.2	16.5
PGWWTP (included in modeling)	101.6	25.9
Total Retention Volume Requirement		***685.5***

SOURCE: Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, Table 25.

Remainder Area

If the Remainder Area were developed at levels similar to those proposed in the WRSP, development of the Remainder Area would be estimated to generate 291.3 acre-feet of runoff (see Table 4.12-6). The effects on stormwater runoff volumes are discussed above. As described for the WRSP, without the completed regional detention facility, runoff at buildout could result in increased risk of flooding at downstream properties. However, the Remainder Area contribution would be less than significant because if the project is approved and funded, it will be constructed over the next 10 years so that at Buildout the retention basin should be completed and capable of dealing with the stormwater flows. Therefore, as described for the WRSP Area, this impact is considered **less than significant**. To further reduce potential impacts MM 4.12-3 would ensure that if the regional detention center is not completed at buildout, the construction of a funding mechanism for any stormwater detention facilities is in place.

IMPACT 4.12-3:	**PLACEMENT OF FILL OR STRUCTURES IN 100-YEAR FLOODPLAIN COULD AFFECT WATER SURFACE ELEVATIONS, WHICH COULD INCREASE THE RISK OF FLOODING.**	
Applicable Policies and Regulations:	FEMA (44 CFR 60) City Floodplain Development Regulations (Chapter 9.80, Roseville City Code)	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Significant
Mitigation Measures:	None required	MM 4.12-4 (Floodplain Policies)
Significance after Mitigation:	Less Than Significant	Less Than Significant

Pleasant Grove Creek, Kaseberg Creek, and Curry Creek flow through the Project Area. As illustrated in Figure 4.12-2, the 100-year floodplain for Pleasant Grove Creek is broader in the western part of the

Project Area than in the eastern portions. Development of the Project Area is anticipated to include the placement of small amounts fill at certain locations. Some of the fill would be used in small depressions in overbank areas to reduce the extent of the floodplain where uses other than open space or park would occur. Fill would also be placed as part of the construction of proposed roadway and bridge crossings, drainage culverts, and the weir structure for the Curry Creek detention basins. Refer to Section 4.7 (Biological Resources) for additional information regarding fill placement and permitting requirements.

West Roseville Specific Plan

Locations of proposed fill in the WRSP Area are shown in Figure 4.12-4 (Proposed 100-Year Floodplain Fill Areas in West Roseville Specific Plan). The placement of fill would slightly reduce the conveyance capacity of the Pleasant Grove Creek and tributary floodplains and would minimally increase water surface elevations in the WRSP Area. These increases (approximately 1 to 2 inches) are not considered substantial and are only located within the WRSP.[448] Downstream water surface elevations would not be measurably affected.[449] The modeled estimates of water surface elevation changes listed in Table 4.12-7 include a component that accounts for these fill improvements. Compliance with the City's Floodplain Development Regulations would mitigate any impacts associated with fill in the 100-year floodplain. A Letter of Map Revision (LOMR) for Pleasant Grove Creek and tributary floodplains, including the Curry Creek tributary, will be submitted to FEMA after the City of Roseville and Placer County Flood Control and Water Conservation District have reviewed the data. While the absolute boundary of the 10-year and 100-year floodplains could vary slightly from the elevations shown on detailed floodplain maps in the *Master Drainage Study*, placement of the fill would not increase water surface elevations beyond those estimated in the current HEC-RAS model. As land uses are refined within the WRSP Area, this detail will be further refined to ensure that no private development would occur in the floodplain. Because no development would occur in the 100-year floodplain, people and structures would not be exposed to 100-year flood hazard, and the WRSP would not increase flood elevations beyond those already identified. Therefore, this is considered a **less-than-significant** impact**.**

[448] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 45 and Table 24.
[449] Chris Ferrari, Wood Rodgers, personal communication, June 13, 2003.

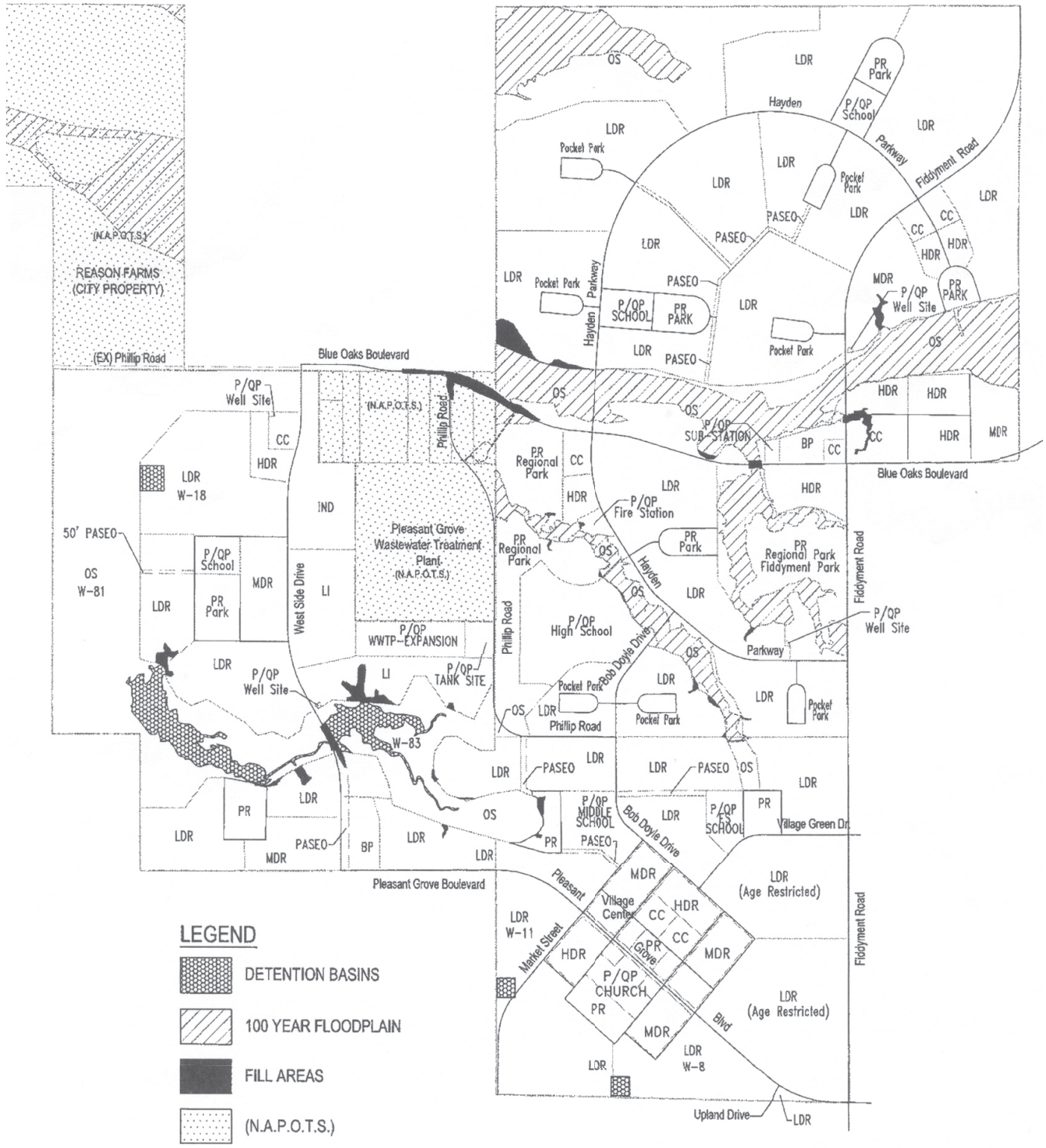


FIGURE **4.12-4**

Proposed 100-Year Floodplain Fill Areas in West Roseville Specific Plan

Not to Scale

10659-00

Source: Wood Rogers

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Table 4.12-7 Curry Creek Downstream Changes in Water Surface Elevations with Detention Basin E and Weir Structure in Place

Location	Existing 10-year WSL (feet)	Existing plus Project 10-year WSL (feet)	Net Change (feet)	Existing 100-year WSL (feet)	Existing plus Project 100-year WSL (feet)	Net Change (feet)
Downstream of berm at WRSP/SOI Remainder Area No. 2 boundary (with proposed detention)[a]	83.02	82.96	-0.06	83.66	83.61	-0.5

NOTES:
WSL = water surface elevation
a = Basin E, southwestern part of Remainder Area west of Westpark property
SOURCE: Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, Table 23.

Remainder Area

Because the specific land uses within the Remainder Area and potential fill areas have not been identified at the same level of detail as the WRSP, placement of fill or structures within the Pleasant Grove Creek floodplain in the Remainder Area could encroach upon the floodplain, which could reduce the capacity of the channel to convey flows. Floodplain encroachment could increase water surface elevations in the channel that could, in turn, cause or exacerbate flood risk in the Remainder Area or at downstream locations. This is considered a significant impact**.**

Implementation of MM 4.12-4 would reduce this impact to a **less-than-significant** level by ensuring that development in the Remainder Area does not occur in the 100-year floodplain, or if small amounts of fill are placed in the floodplain that water surface elevations would not be measurably affected.

IMPACT 4.12-4:	**EROSION AND RUNOFF FROM CONSTRUCTION SITES CONTAINING SOIL OR OTHER MATERIALS COULD DEGRADE WATER QUALITY IF DISCHARGED TO LOCAL STREAMS.**	
Applicable Policies and Regulations:	SWRCB NPDES Permit (State General Construction Activity Stormwater Permit) City of Roseville Improvement Standards Sections 2 and 11	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None required	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant

WRSP and Remainder Area

Development associated with the project, including off-site infrastructure connections, would involve the construction of structures, roadways, parking lots, and infrastructure, which would require grading, excavation, and other construction-related activities that could cause soil erosion at an accelerated rate

during storm events. Sediment from erosion could have adverse effects on receiving water quality at the site and downstream, including Curry Creek, Pleasant Grove Creek, and eventually the Sacramento River. Such effects could include increased turbidity, which could result in adverse impacts on fish and wildlife habitat, reduced pump life at Sacramento River water intakes due to abrasion, increased municipal/industrial water treatment costs for turbidity removal, and impaired recreation and aesthetic values. Another potential source of water quality degradation during construction activities is heavy machinery and other construction equipment. Construction equipment spills could result in the release of polluting constituents, such as heavy metals, oil, grease, and other petroleum hydrocarbons, to Pleasant Grove Creek and other on-site channels.

Project construction contractors would be required by state law to obtain and comply with the State General Construction Activity Stormwater Permit. Compliance with the permit would involve the implementation of Best Management Practices (BMPs). BMPs include schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce pollution (i.e. straw bales, dikes, silt fences, sediment traps, or similar methods). Contractors would also be required to prepare and retain on-site an Erosion Control Plan in accordance with Sections 2 and 11 of the City of Roseville's Improvement Standards. The plan would include a description of the construction site, time restrictions, erosion and sediment controls to be used, means of waste disposal, control of post-construction sediment and erosion control measures and maintenance responsibilities, landscaping during and after grading, and non-stormwater management controls.

Compliance with the State General Construction Activity Permit, as recently modified by SWRCB resolution, and City Improvement Standards, which require preparation and implementation of an Erosion Control Plan, would ensure that construction-related sediment or other contaminants that could adversely affect receiving water, would be reduced to **less-than-significant** levels.

IMPACT 4.12-5:	**CHANGES IN SURFACE WATER OR GROUNDWATER QUALITY RESULTING FROM URBAN STORMWATER RUNOFF.**	
Applicable Policies and Regulations:	NPDES Phase 2 Program regulations (City of Roseville Storm Water Management Plan)	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None required	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant

Development associated with the Proposed Project would result in the conversion of undeveloped land to urban uses including residences, schools, businesses, recreation amenities, roadways, and parking areas. As discussed in Impacts 4.12-1 and 4.12-2, the increase in impervious surfaces resulting from the construction of buildings and paved areas would increase the rate and amount of stormwater runoff that would carry urban pollutants into Pleasant Grove Creek, Kaseberg Creek, or Curry Creek. It is anticipated that runoff from the Project Area would be typical of urban runoff water quality for the identified uses listed in Table 4.12-1. Activities that could increase the types or quantities of non naturally occurring pollutants in runoff due to development include motor vehicle operations, residential maintenance, littering, careless material storage and handling, domestic animal and wildlife wastes, and pavement wear. Pollutants typically associated with urban uses, such as those that could be developed in the Project Area, include oil and grease, coliform bacteria, petroleum hydrocarbons (gas and diesel fuels), nitrogen, phosphorus, heavy metals such as lead, copper, and zinc. Pesticides, herbicides, and other landscape maintenance products typically used in residential developments or formally landscaped areas could also be present. Urban runoff studies throughout the U.S. have shown that the concentration of suspended solids usually decreases as exposed soils are covered by impervious surfaces, although some sediment may still be present due to entrained dust on roadways and parking lots and from any open space areas.

The potential impacts associated with groundwater and surface water quality, as it relates to stormwater runoff, are addressed below for both the WRSP and Remainder Areas.

West Roseville Specific Plan

Development in the WRSP would result in a change in the types and amounts of pollutants discharged through stormwater outfalls as undeveloped land is converted to urban uses. Figure 4.12-5 (Proposed Major Water Quality Treatment Locations in WRSP [Fiddyment Ranch Property]) and Figure 4.12-6 (Proposed Major Water Quality Treatment Locations in WRSP [Westpark Property]) illustrate proposed water quality outfall locations. Consistent with current and anticipated NPDES Phase 2 stormwater requirements, a variety of water quality BMPs have been identified for the WRSP to treat the first flush storm event. These BMPs, which are included in the Master Drainage Study, provide guidelines to be implemented for the WRSP. The guidelines are based on BMPs currently being used in Roseville, Placer County, and the City/County of Sacramento. As discussed above, the City has prepared a SWMP under the Phase 2 program that would be applicable to the WRSP Area.

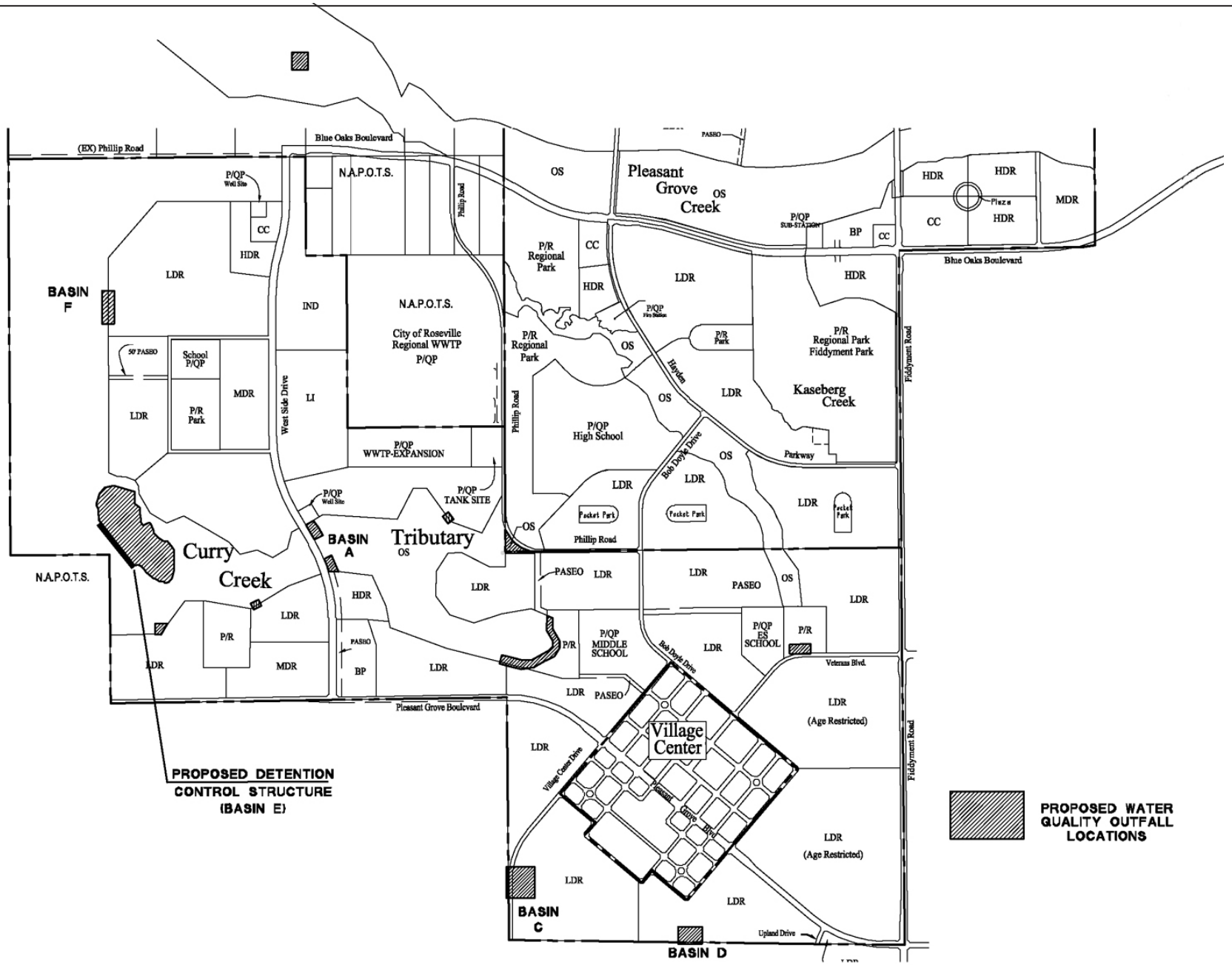


FIGURE **4.12-5**

Proposed Major Water Quality Treatment Location in WRSP (Fiddyment Ranch Property)

Source: Wood Rogers, Inc.

City of Roseville

Not to Scale

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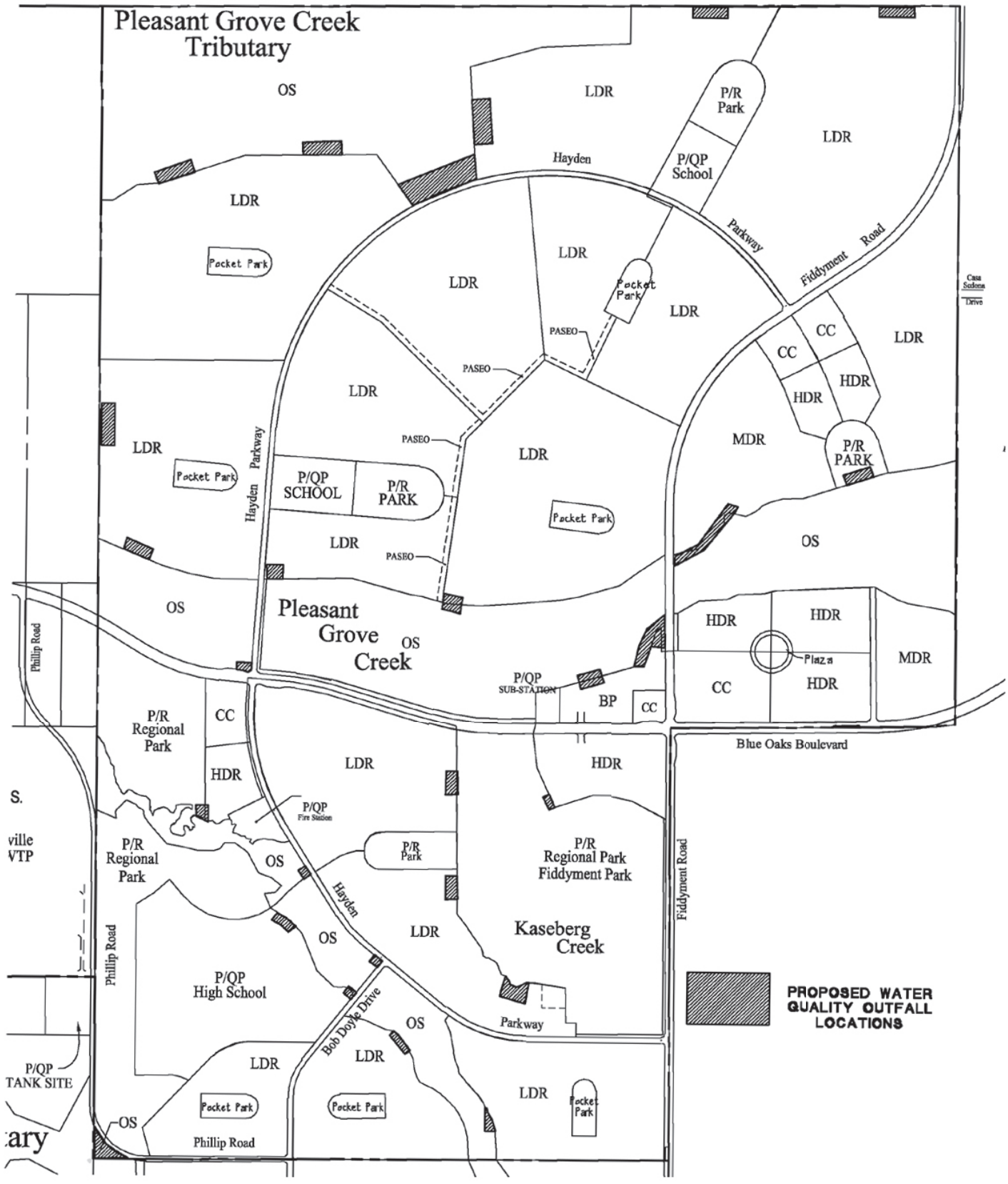


FIGURE **4.12-6**

Proposed Major Water Quality Treatment Locations in WRSP (Westpark Property)

Not to Scale

10659-00

Source: Wood Rogers

City of Roseville

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Water quality treatment features in the WRSP Area could include the detention basins in the Curry Creek watershed, which would include low-flow areas to allow pollutants to settle. Grassy swales and vegetated channels could be used to remove pollutants by filtration. These BMPs are typically situated at outfalls. The WRSP provides several open space buffer areas that are proposed for such features. Landscaped roadside channels and/or buffer strips are also effective. Figures 4.12-2, 4.12-4, and 4.12-5 show a conceptual layout of where detention basins or grassy swales/vegetated channels and associated outfall structures could be located to provide water quality treatment. Oil/water grit separators, sand filter systems, or other on-site structural controls could be used in commercial, industrial, or other areas where higher-than-normal levels of pollutants could be generated. Constructed wetlands, which are shallow pools with or without open water elements that create growing conditions suitable for marsh plants, provide treatment by decreasing flow velocities. However, constructed wetlands require additional land and sources of water that may not be available in the WRSP Area.[450]

The specific BMPs that could be used in the WRSP Area, either individually or in combination, may need to be refined at the tentative map stage. For example, the drainage features will need to be modified, as necessary, to ensure compliance with the City's Phase 2 SWMP storm event standards (Attachment 4, page 6, of the State Water Resources Control Board (SWRCB) Water Quality Order No. 2003-0005-DWQ). In addition, when more detailed information is developed for each land use (e.g., tentative map), actual design for target pollutant identification and specific BMPs, such as vegetative planting, would also be necessary. Because the proposed water quality BMPs for the WRSP Area are still being refined and the City has not yet implemented a specific program to monitor the effectiveness of the proposed BMPs at the WRSP Area under the requirements of the Phase 2 SWMP, there is the potential that urban runoff from the WRSP Area could contain levels of pollutants that could adversely affect water quality in the local streams or increase sediment loads. Similarly, because creeks are the primary source of groundwater recharge in the WRSP Area, contaminants could migrate to groundwater.

Compliance with the NPDES regulations detailed above, would ensure BMPs specific to the land uses in the WRSP Area are implemented and are monitored for their effectiveness in reducing urban pollutants in runoff so that Basin Plan objectives and water quality standards are not violated, and that the BMPs are consistent with the City's Phase 2 SWMP. This would ensure potential water quality effects from urban runoff remain at a **less-than-significant** level**.**

[450] Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, June 2003, page 50.

Remainder Area

If the remaining portions of the SOI Amendment Area were developed at levels similar to those proposed in the WRSP, the effects on urban runoff would be similar to those described for the WRSP. Although Placer County has developed and implemented a Phase 2 program, the land uses in the Remainder Area have only been identified at a conceptual level for purposes of programmatic analysis. The types of BMPs that could be used in the Remainder Area have not been documented and how they would be monitored has not been established. Therefore, urban runoff water quality impacts could be significant**.**

Compliance with the NPDES regulations as detailed above would ensure BMPs specific to the land uses in the Remainder Area are implemented and are monitored for their effectiveness in reducing urban pollutants in runoff so that Basin Plan objectives and water quality standards are not violated. This would ensure potential water quality effects from urban runoff remain at **less-than-significant** levels**.**

IMPACT 4.12-6:	**GROUNDWATER USE DURING DRY YEARS.**	
Applicable Policies and Regulations:	Roseville General Plan City/County MOU Placer County General Plan Guiding Principles Water Forum Agreement	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	No impact
Mitigation Measures:	MM 4.11-2 (non-extraction)	None required
Significance after Mitigation:	Less Than Significant	No impact

Development of the Proposed Project would increase the demand on water supplies. As discussed in greater detail in Impacts 4.11-1 and 4.11-2 in Section 4.11 (Public Utilities), this demand for water would be met through a combination of sources. During average/wet years, a portion of required surface water would be obtained from existing supplies and treated at the City's Water Treatment Plant on Barton Road. The remainder would be from a treatment facility that would be constructed as part of the Sacramento River Water Reliability Project, if that project is approved and built. The Sacramento River Water Reliability Project is required for development of the Remainder Area, as groundwater use would not be allowed to support growth in either the WRSP or the Remainder Area during average/wet years. However, groundwater could be used during dry years to supplement supplies in the WRSP.

Effects of Groundwater Use During Dry Years

West Roseville Specific Plan

Development of the WSRP Area would increase the demand on water supplies. As discussed in greater detail in Impacts 4.11-1 and 4.11-2 in Section 4.11 (Public Utilities), this demand for water would be met through a combination of sources. During average/wet years, sufficient surface water would be obtained from existing supplies and new supplies and treated at the City's Water Treatment Plant on Barton Road. Groundwater use would not be allowed in the WRSP Area during average/wet years. However, due to contractual obligations, approximately 2,848 AF/yr of surface water supplies would not be available during dry and driest years. As a result, the City would have to implement extraordinary measures including implementing water conservation measures, and utilizing emergency groundwater supplies as a backup consistent with current City practices. The following analysis is based on MWH Groundwater Analysis to determine what the impact of using groundwater during dry conditions by the WRSP Area would be.

Based on 70 years of historic data, which included the 1977 drought of record, the results of hydrologic modeling suggest that groundwater would only be required in 12 of 70 years, or 17 percent of the time. During dry years, as stated in Impact 4.11-2, groundwater would be needed to supplement surface water supplies. While this is consistent with regional water planning established in the Water Forum Agreement, it is implicit in the City/County MOU Development Agreement Standards and Guiding Principles that surface water will be the water supply source. The Placer County General Plan also encourages use of surface water for urban development. However, groundwater use is not prohibited by either document.

MM 4.11-2, identified in Impact 4.11-2 in Section 4.11 (Public Utilities, Water), directs that the annual or permanent retirement of groundwater-irrigated land owned by the City of Roseville (Reason Farms property) could be used to offset the dry-year groundwater use in the WRSP. The following discussion describes the potential environmental effects of groundwater use during dry years for the WRSP and how fallowing land reduces groundwater impacts.

When a well first begins extracting groundwater from an aquifer, groundwater is initially extracted from groundwater storage. The result is a localized cone of depression with an approximately 1,000-foot radius that fluctuates with operation of the well. When extraction ceases, the aquifer typically recharges back to its pre-extraction condition. Over time, a well can also induce an incremental decline in regional groundwater elevations. Cones of depression with a larger aerial extent can form in areas where multiple groundwater extraction wells are in operation. The use of groundwater, although relatively infrequent,

could affect the aquifers underlying the SOI Amendment Area and/or regional conditions by altering groundwater elevations that could, in turn, affect recharge conditions, change aquifer storage characteristics, result in localized well impacts, or cause areas of poorer quality groundwater to shift. This would be a significant impact.

Based on preliminary groundwater supply estimates that assumed conservative extraction rates of up to 2,848 AF/yr of groundwater in a dry year for WRSP Area, the hydrologic modeling for the WRSP Area indicates that groundwater elevations/piezometric surfaces in dry years without mitigation would potentially be lower relative to baseline conditions. The maximum potential drop in groundwater surface elevations in Aquifer 1 (unconfined aquifer) would be about 3 feet, and the maximum potential drop in the groundwater piezometric elevation (for a well screened in only a confined or semi-confined aquifer) would be about 6 feet.[451] The potential drop in groundwater/piezometric elevations in dry years could be reduced to insignificant levels, by the City's commitment not to extract 2850 acre feet of groundwater at Reason Farms in dry or drier years. In fact, reducing groundwater extraction at Reason Farms could raise groundwater levels by as much as 9 feet in Aquifer 1 (in wet years). The groundwater that would have been extracted for irrigation purposes would be banked for future use ("in-lieu groundwater banking").

Table 4.12-8 presents modeling results comparing the effect of groundwater extraction before and after implementation of MM 4.11-2 (which conservatively assumed up to 3,851 AF/yr of groundwater would be available through City's commitment not to extract 2,850 acre-feet of groundwater at Reason Farms in dry years). As discussed in Impact 4.11-2 (dry-year water supply impact in Section 4.11.2, Public Utilities, Water).[452] Figure 4.12-7 (Baseline Condition Aquifer 1: Groundwater Surface Elevation Contours, Dry Year) shows future baseline groundwater elevation contours (in feet above mean sea level) for Aquifer 1 in dry years. Figure 4.12-8 (Baseline Condition with Mitigation Aquifer 1: groundwater Surface Elevation Contours, Dry Year) shows future predicted groundwater elevation contours for Aquifer 1 in dry years with WRSP groundwater use and implementation of mitigation. Figure 4.12-9 (Baseline Condition Aquifer 2: Piezometric Surface Elevation Contours, Dry Year) shows future baseline piezometric[453] surface elevation contours for Aquifer 2 in dry years. Figure 4.12-10 (Baseline Condition with Mitigation Aquifer 2: Piezometric Surface Elevation Contours, Dry Year) shows future predicted piezometric surface elevation contours for Aquifer 2 with WRSP groundwater use and implementation of mitigation. By comparing the locations of groundwater elevation contour lines and projected piezometric surface elevations in Figures 4.12-7 (baseline) and 4.12-8 (future mitigated) for Aquifer 1 and in Figures 4.12-9

[451] MWH, Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan, June 2003, p.5-2.
[452] MWH, Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan, June 2003, p. 5-7.
[453] The piezometric surface elevation is the elevation of groundwater within a well that is screened in only the confined or semi-confined aquifer. The groundwater surface elevation is the elevation of groundwater in an unconfined aquifer.

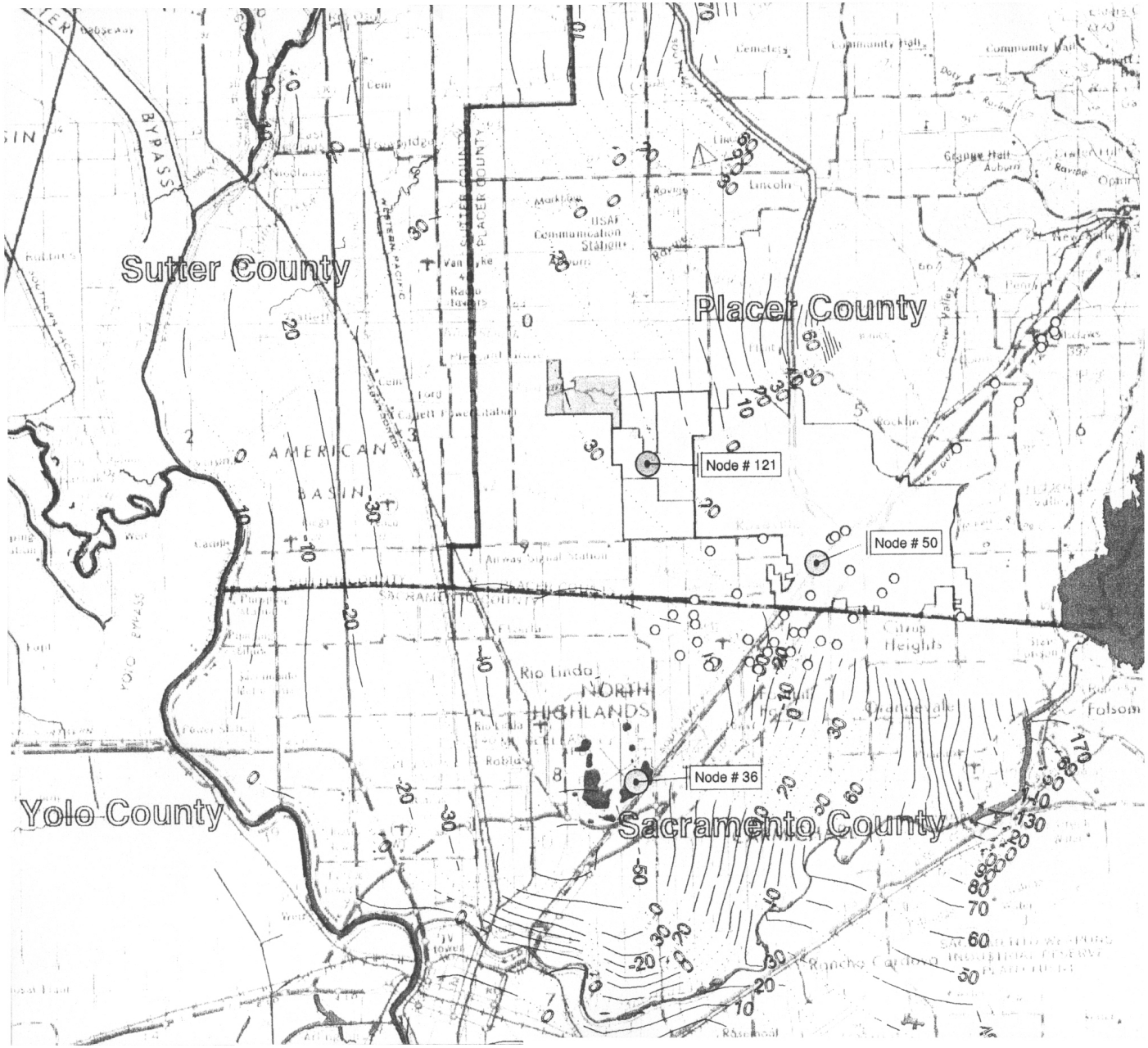


FIGURE **4.12-7**

Baseline Condition Aquifer 1: Groundwater Surface Elevation Contours, Dry Year

10659-00

Source: MWH, June 2003

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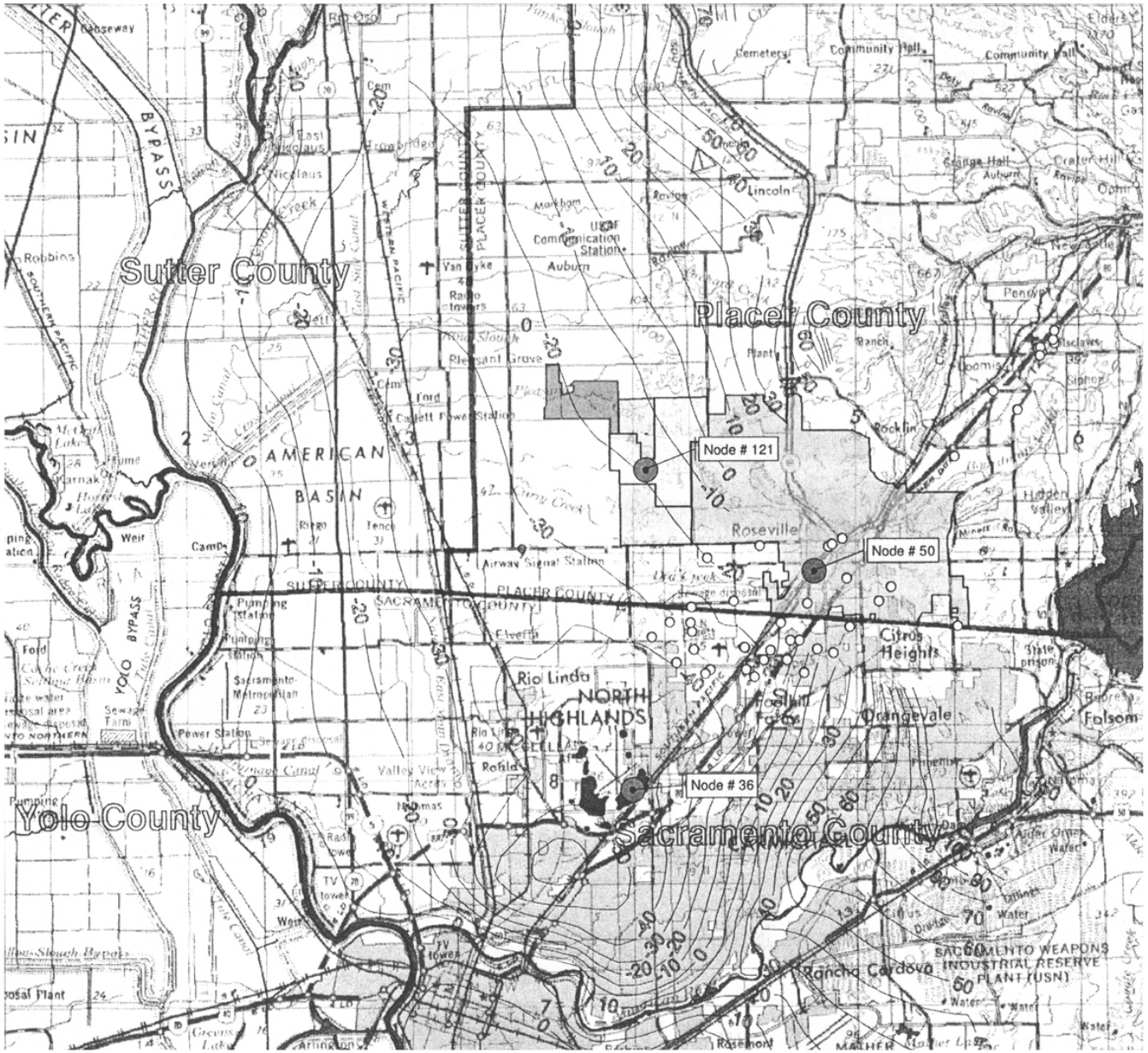


FIGURE **4.12-8**

Baseline Condition with Mitigation Aquifer 1: Groundwater Surface Elevation Contours, Dry Year

Source: MWH, June 2003

City of Roseville

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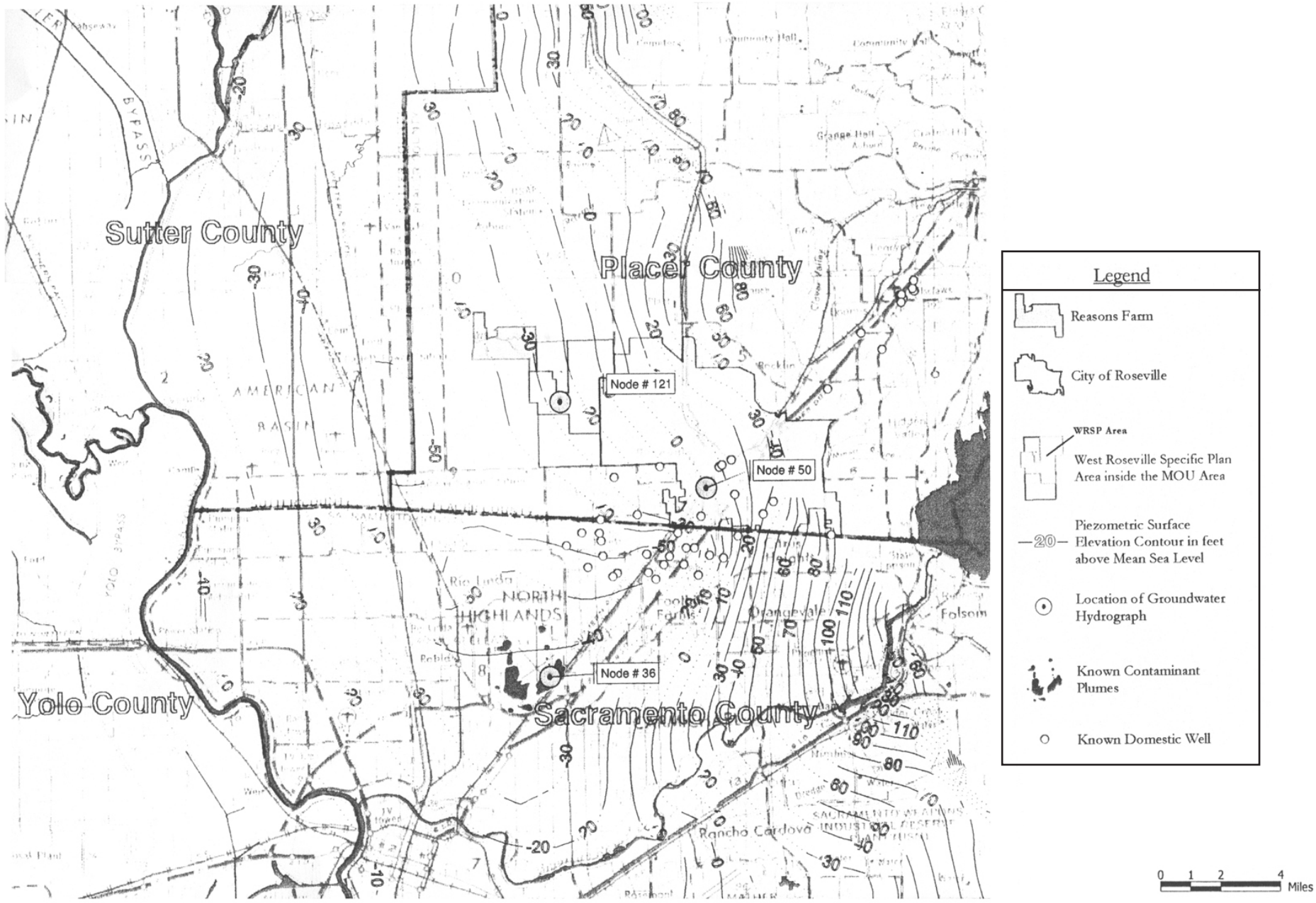


FIGURE **4.12-9**

Baseline Condition Aquifer 2: Piezometric Surface Elevation Contours, Dry Year

10659-00

Source: MWH, June 2003

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(baseline) and 4.12-10 (future mitigated) for Aquifer 2, respectively, there is only a minimal shift in groundwater and piezometric surface elevations across the WRSP and negligible change regionally. The net changes in groundwater elevations in Aquifers 1 and 2 are described below. Additional figures depicting the net change in groundwater elevations for Aquifers 1 and 2 under future mitigated conditions are included in Appendix M.

Table 4.12-8 Estimated Changes in Groundwater Levels with Groundwater Extraction for WRSP Showing Effect of Mitigation

Condition	Difference in Groundwater Elevation for Aquifer 1 in Dry Year (feet)	Difference in Piezometric Surface Elevation for Aquifer 1 in Dry Year (feet)	Difference in Groundwater Elevation for Aquifer 2 in Wet Year (feet)	Difference in Piezometric Surface Elevation for Aquifer 2 in Wet Year (feet)
Without mitigation	-3	-6	3	1.5
With mitigation	4	2	9	8

NOTES:

Differences in groundwater elevation from dry year (1977) and wet year (1986) baseline conditions. Negative values represent a decline in groundwater conditions from the baseline condition.

SOURCE: MWH, Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan, June 2003, Table 5.1.

Without the extraction of groundwater at Reason Farms, groundwater elevations in dry years in Aquifer 1 are projected to rise 4 feet. There would also be an increase of 2 feet in the piezometric surface elevation in Aquifer 2. As indicated by the data and as illustrated in figures, the annual or permanent fallowing at the Reason Farms property would not result in a substantial change in groundwater surface elevations or flow directions across the WRSP site or regionally. This indicates that non-extraction of ground water during dry years mitigation would fully offset the anticipated groundwater extraction under the City's proposed water supply strategy for meeting WRSP water demands.[454] For the above reasons, this impact is considered **less than significant**.

Potential Effects of No or Reduced Groundwater Extraction at Reason Farms (as recommended by MM 4.11-2)

An EIR was prepared for a project proposed by the City of Roseville that would develop a regional stormwater retention basin facility on a portion of the approximately 1,500-acre Reason Farms property west of the SOI Amendment Area. The property would be owned and managed by the City of Roseville. This would result in the conversion of agricultural land to non-agricultural use. The EIR for the retention basin project concluded that the conversion of up to 1,500 acres of agricultural land predominantly used for rice farming to other uses would result in the following significant and unavoidable environmental impacts: direct and indirect conversion of prime agricultural land to non-agricultural use; inconsistency with Placer County air quality attainment plan, Placer County General Plan, and Roseville General Plan

[454] MWH, Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan, June 2003, pp.6-1 to 6-2.

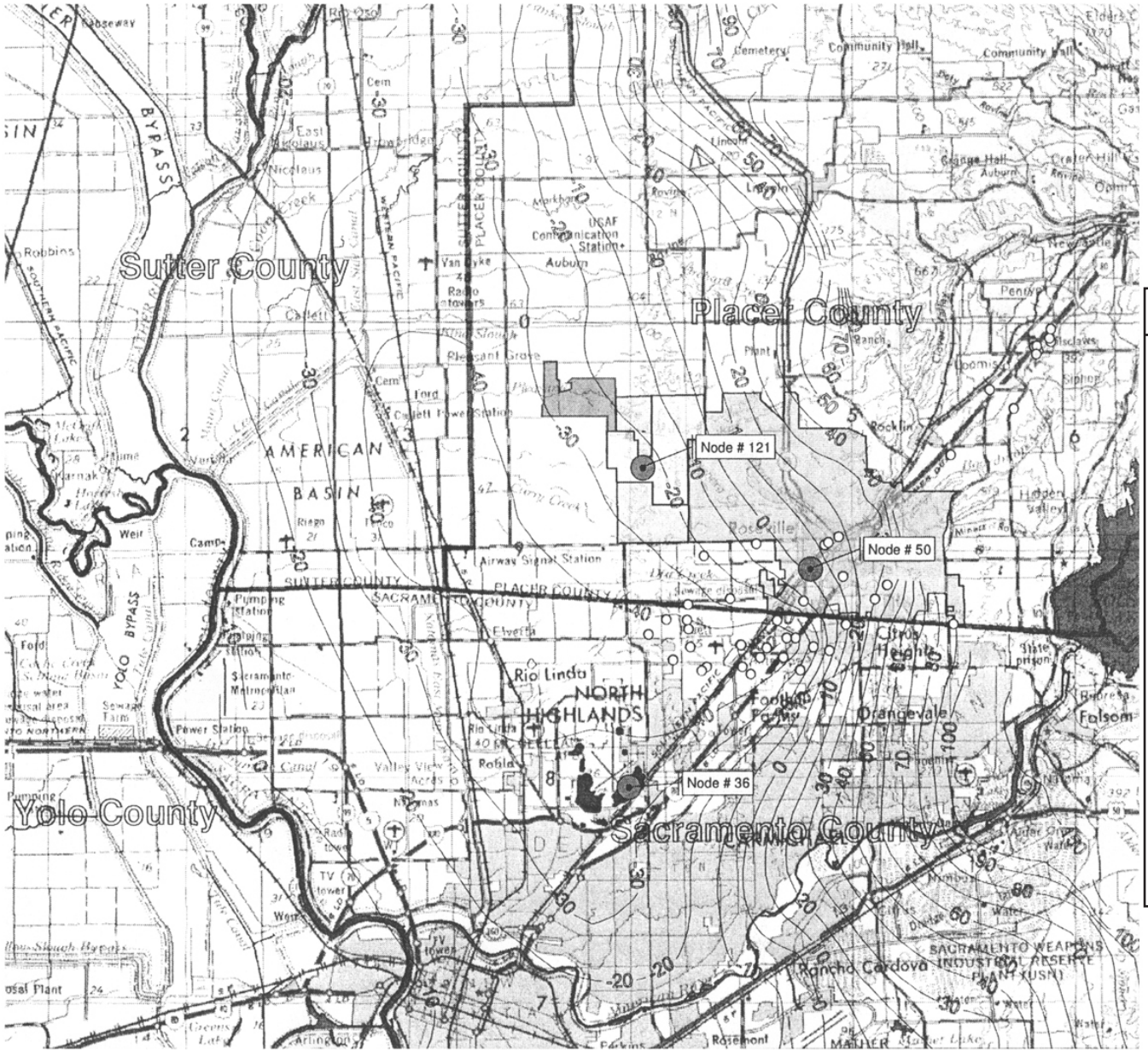


FIGURE **4.12-10**

Baseline Condition with Mitigation Aquifer 2: Piezometric Surface Elevation Contours, Dry Year

Source: MWH, June 2003

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(construction-related air emissions); short-term noise level increases; and indirect cumulative growth inducement. For all other impact areas identified in Appendix G of the CEQA Guidelines (aesthetics, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, and utilities/service systems), the EIR concluded the proposed retention basin project would result in less-than-significant impacts either because they would not exceed an established standard or because mitigation measures that would reduce potential impacts to a level of insignificance were incorporated into the proposed project.[455]

The groundwater impact analysis prepared for this EIR assumed the City's commitment not to extract 2850 acre feet of groundwater at Reason Farms in dry years, which would not exceed the assumptions in the certified EIR for the proposed retention basin with regard to the conversion of agricultural land to non-agricultural uses. Reducing groundwater use at Reason Farms, in and of itself, would not contribute to the significant and unavoidable construction-related air quality or noise impacts identified for the proposed retention basin project because there would be no source of emissions or noise-generating construction equipment.

Cultivated and/or fallow rice fields encompass approximately 1,286 acres of the Reason Farms property. Many species of migratory waterfowl, cinnamon teal (*Anas cyanoptera*), Canada goose (*Branta canadensis*), and American widgeon (*Anas americana*) occupy flooded rice fields during the winter months and forage there during the spring when the water is low. Native vegetation is excluded from cultivated portions of the rice fields by the application of herbicides. There is a small freshwater marsh (approximately 4 acres) in the rice fields south of Pleasant Grove Creek. The freshwater marsh habitat is dominated by broad-leaf cattail (*Typha latifolia*) and Pacific rush (*Juncus effuses*). Bird species such as mallard (*Anas platyrhynchos*), American widgeon (*Anas americana*), and red-winged blackbirds (*Agelaius phoeniceus*) use the freshwater marsh. Two seasonally ponded depressions (tire tracks) near a north/south dirt access road on the western side of the property were observed to contain Dwarf downingia (*Downingia pusilla*) in April 2002. Dwarf downingia has no federal or State listing status, but it is included on the California Native Plant Society List 2. There are some small areas of seasonal wetlands including vernal pools and seasonal swales located along a north/south access road. These features can support vernal pool fairy shrimp and

[455] City of Roseville, Draft Environmental Impact Report for the City of Roseville Retention Basin Project (SCH No. 2002072084), Chapter 2.0, Executive Summary, and Section 8.2, Significant Environmental Effects Which Cannot Be Avoided.

vernal pool tadpole shrimp, which are federally listed threatened and federally listed endangered species, respectively.[456]

The potential indirect effect of a reduction in irrigation is not expected to result in any significant biological resources impacts because this habitat is currently disturbed and provides only limited habitat resources that are already available elsewhere in more natural areas such as marshes and other wetlands. Additionally, there are no special-status species that are dependent on this agricultural habitat type for their survival. Once this land is allowed to fallow, it will revert to its natural state, which would provide suitable foraging habitat for Swainson's hawk and other raptors, and potentially for vernal pool and other seasonal wetland species.

Groundwater Use during Dry Years

Remainder Area

As discussed in Impacts 4.11-1 and 4.11-2 (Remainder Area) in Section 4.11.2 (Public Utilities, Water), the Remainder Area cannot be developed without the Sacramento River Water Reliability Project (per MM 4.11-1) or some other yet identified surface water source. If the Sacramento River Water Reliability Project is approved and constructed, and becomes the water source for the Remainder Area there would be no dry year restriction and groundwater would not be needed as a backup supply. Because no groundwater is anticipated to be used in the Remainder Area, there would be **no impact.**

IMPACT 4.12-7:	**CHANGES IN GROUNDWATER RECHARGE POTENTIAL THROUGH THE DEVELOPMENT OF IMPERVIOUS SURFACES.**	
Applicable Policies and Regulations:	None Applicable	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None required	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant

[456] City of Roseville, Draft Environmental Impact Report for the City of Roseville Retention Basin Project (SCH No. 2002072084), Figure 6-1 and pp. 6-4 to 6-9.

Groundwater Recharge

WRSP and Remainder Areas

Groundwater supply is partly dependent on "recharge" by percolation of rainwater through permeable surfaces. Groundwater recharge in the Project Area occurs primarily along stream channels such as Pleasant Grove Creek, Kaseberg Creek, Curry Creek, and smaller tributaries to these waterways. As described in the Setting, the SOI Amendment Area is undeveloped and there are minimal impervious surfaces; soils that are impermeable or underlain by hardpan comprise most of the SOI Amendment Area. In these areas, infiltration is low, thereby limiting groundwater recharge.

Although there would be new impervious surfaces created by development in the SOI Amendment Area (see Impact 4.12-1), recharge is already limited under existing conditions. Runoff from the new impervious surfaces would be collected and diverted through on-site drainage controls, such as swales, channels or other detention features, and ultimately released downstream. Some infiltration from these features would occur. Water from flows released from the SOI Amendment Area to downstream channels could also provide some recharge. In effect, recharge would still occur, but at different locations and at different rates than under existing conditions. In addition, FEMA and City floodplain development restrictions (see Impact 4.12-3) would limit the types and locations of structures that could be placed near the stream channels. Because areas along stream channels would remain undeveloped either because of proximity to the 100-year floodplain or with the use of natural resource buffers, recharge along stream channels would not be affected. Therefore, the SOI Amendment would result in a **less-than-significant** impact on groundwater recharge potential and would not result in a reduction in available groundwater supply.

Mitigation Measures

MM 4.12-1: Prepare site-specific drainage study (Impact 4.12-1 – Remainder)

> If a larger detention basin near the main branch of Curry Creek is used for the Remainder Area, and includes flows for the WRSP Area, Specific Plans and/or other development proposals for the Remainder Area shall prepare a site-specific drainage study. The study shall identify appropriate sizing and location to ensure that Remainder Area flows, in combination with flows generated in the WRSP Area, can be accommodated in the larger basin. The study shall also be used to identify features that will limit peak flow runoff from the areas drained to Curry Creek to pre-development levels per the PCFCWCD SWMM and City standards. The study shall also be used to demonstrate the larger basin will not cause or exacerbate downstream flooding conditions

Specific Plans and/or other development proposals for the Remainder Area, shall include a site-specific drainage study prepared in accordance with PCFCWCD SWMM and City of Roseville standards to identify on-site storm drainage features that will limit peak flow runoff from the area that drains to Curry Creek to pre-development levels, provided it can be demonstrated that such features will not cause or exacerbate flooding conditions in the SOI Amendment Area or at downstream locations outside the SOI Amendment Area. The drainage study shall be submitted to the PCFCWCD and City Roseville for review. If a basin in the Remainder Area is used to store flows generated by sheds C-WP7 and C-WP8 in the WRSP Area, in addition to Remainder Area-generated flows, the drainage study shall ensure that sufficient capacity is provided to manage total flows into the basin.

MM 4.12-2: Pay fair-share of Roseville regional stormwater retention facility improvements (Impact 4.12-2 – WRSP)

The City shall collect the Pleasant Grove Drainage fee from the applicants prior to the approval of each building permit, which would cover the cost of retention for that development's portion of the Roseville regional retention basin at Reason Farms.

MM 4.12-3: Retention Policies (Impact 4.12-2 – Remainder)

Specific Plans and/or other development proposals for the Remainder Area shall demonstrate, through the preparation of technical engineering studies, that the increased volume of stormwater runoff from the SOI Amendment Area, which includes the WRSP Area, can be accommodated in the approved regional stormwater retention facility. The results of the study shall be submitted to the City of Roseville Public Works Department for review and concurrence. The facility shall be expanded as necessary, funded through fair-share contributions by project developers.

MM 4.12-4: Floodplain Policies (Impact 4.12-3 – Remainder)

Specific Plans and/or other development proposals for the Remainder Area shall identify the 100-year floodplain for each location that could be affected by fill placement or installation of structures to ensure water surface elevations estimated in the Master Drainage Study would not be measurably increased. If measurable increases are identified, redesign or relocation of the fill or structures shall be considered. In addition, the recalculated water surface elevations shall be used to determine what improvements, if any, are necessary to provide adequate mitigation so that off-site risk of flooding is not increased as a result of Remainder Area development, in combination with the WRSP Area development. Those improvements shall be required to be constructed as a condition of approval of the proposed development.

4.13 AESTHETICS AND VISUAL RESOURCES

4.13.1 Introduction

This section of the EIR evaluates the potential changes to the existing visual characteristics of the project site that could result from future development of the Sphere of Influence (SOI) Amendment Area. The analysis focuses on the potential loss of visual resources, effects on views, compatibility with the visual characteristics of surrounding uses, and the likelihood that sensitive receptors would be disturbed by light and glare generated or reflected by new structures within and in the vicinity of the SOI Amendment Area.

While land use designations have been applied to all land in the WRSP, the exact design of the projects to be developed under the WRSP is not known at this time. Also, the location and design of future development in the Remainder Area will not be determined until Specific Plans and other planning documents are proposed for projects in the Remainder Area. Therefore, specific uses or building designs are not analyzed; rather, the general visual effects of development under the WRSP Area and the Remainder Area are described.

Comments received in response to the Notice of Preparation (refer to Appendix B) for this project expressed concern about alteration of views and visual character in the vicinity of the WRSP and Remainder Areas. In addition, a scoping meeting was held on August 29, 2002 to receive comments on the proposed WRSP and the Remainder Areas. Comments received at the scoping meeting included concerns about the heights of buildings to be constructed on the west side of Fiddyment Road and related loss of privacy for the existing residences at the Del Webb Specific Plan Area located to the east.

Information contained in this section is based on review of existing documentation, including

- *Placer County General Plan* (November 18, 1992)
- *City of Roseville General Plan* (August 1994 and amended in January 2003)
- *The West Roseville Specific Plan*
- A site visit conducted in May 2002

All of these documents are available for review at City of Roseville's Permit Center, 311 Vernon Street, Roseville, CA.

As discussed in Chapter 1, Introduction, this EIR evaluates the impacts of the WRSP, which would include an SOI amendment and annexation to the City, at a project-specific level. Because an SOI

amendment is the only action proposed for the Remainder Area (that portion of the SOI Amendment Area outside of the WRSP), a program-level analysis is provided for the Remainder Area. In order to conduct the analysis, development assumptions are made for the Remainder Area (refer to Chapter 2, Project Description, for details). Figure 1-1 (SOI Amendment Area) in Chapter 1 identifies the boundaries of the entire SOI Amendment Area, WRSP, and Remainder Area.

As discussed in Chapter 4 of this EIR, Environmental Analysis, minor changes have been made to the proposed land uses for the WRSP Area since publication of the NOP. Overall, the total amount of open space increased by 34.9 acres, primarily along the western boundary of the WRSP. However, the total amount of area to be disturbed is very similar to the prior land use plan. The total amount of residential units has remained the same, but the number of low-density and high-density units has decreased, while the total number of medium-density units has increased. The open space corridors along Pleasant Grove Creek and Curry Creek have not changed and the historic Fiddyment Ranch complex will remain in its current location and be integrated into the regional sports complex park.

4.13.2 Environmental Setting

Regional Visual Resources

The Roseville vicinity is generally regarded as a transitional zone between the flat, open terrain of the Central Valley and the foothills of the Sierra Nevada Mountains. The region consists of rolling topography with gentle slopes; major drainages typically drain the area from east to west. Oak woodlands are scattered throughout the region and constitute an important factor in regional identity. The oak woodlands, together with scattered riparian vegetation adjacent to drainages, accentuate the ridgeling/drainage patterns found in the landscape and create a strong visual contrast to the surrounding grassland. This contrast is especially evident during the seasonally dry summer and fall months when earth tone colors dominate landscape views.

Vernal pools are also an important aesthetic component of the regional landscape. The flower production and expanded color contrast associated with the pools provide additional landscape interest, even though the contrast and color are seasonally limited. The aesthetic value of vernal pools is also an important factor in the regional identity of the valley/foothills zone.

Development has become a prominent component of the landscape character in the vicinity and is evident throughout the region, reflecting a variety of residential, commercial, and industrial land uses. Development in some areas of the region has completely eliminated the historically rural character associated with regional ranching and agricultural operations. In many other locations, development has

segmented the remaining natural areas, thereby heightening the aesthetic value of remaining contiguous open space.

Long-range views within the region include numerous important landmarks and landscape features, including portions of the Sierra Nevada, Sutter Buttes, Mount Diablo, and the Coast Range. No prominent landscape features or areas of unique scenic quality have been identified in the vicinity of the project site. The most prominent manmade feature is the Pleasant Grove Wastewater Treatment Plant (PGWWTP) currently under construction and the high-power transmission corridor located south of the WRSP Area.

The SOI Amendment Area is characterized by wide expanses of flat to rolling grasslands traversed by Pleasant Grove Creek and Curry Creek. Several rural residences are located in the northeast portion of the SOI Amendment Area. Figure 4.13-1 (Direction and Location of Photographic Views) shows locations and orientations of photographs taken of the SOI Amendment Area, while Figure 4.13-2 (Visual Elements) identifies more specifically the location of specific visual resources referenced in the section.

West Roseville Specific Plan Area

The WRSP Area encompasses approximately 3,162 acres of land, adjacent to the approximately 110-acre PGWWTP and the approximately 70 acres of City-owned land to the north of the PGWWTP site (approximately 180 acres, combined). For the purposes of this analysis, the project site is described as a combination of two areas: the Fiddyment Ranch portion and the Westpark portion (refer to Figure 2-2 [Land Ownership] in Chapter 2 [Project Description]).

Within the WRSP Area, the topography generally consists of rolling grasslands (refer to Figure 4.13-3 [View To and From the Project Site (Photos A and B)], Figure 4.13-4 [View To and From the Project Site (Photos C and D)], and Figure 4.13-5 [View To and From the Project Site (Photos E and F)]). Pleasant Grove Creek, which traverses the central portion of the Fiddyment Ranch portion of the site from east to west, is lined with oak trees and other riparian habitat (refer to Figure 4.13-6 [View To and From the Project Site (Photos G and H)]). North of the creek on the east side near Fiddyment Road, a stand of Tree of Heaven is visually prominent from the surrounding grassland. Aboveground power lines (12 kV) also extend through the WRSP Area north of Pleasant Grove Creek, from Fiddyment Road to the PGWWTP.

Views

Views to the WRSP

The WRSP Area is visible from a short distance as one approaches from any direction, and from adjacent residential areas located east of the WRSP Area. The WRSP Area is also highly visible from the more hilly

land to the north (a medium-range view). Long-range views are available from adjacent open space land; from these areas, the WRSP Area blends into the landscape of the surrounding areas, which have similar topography and vegetation. Pleasant Grove Creek, a prominent visual feature traversing the northern portion of the WRSP Area, is visible at both short and medium range from surrounding land and adjacent roadways. The creek is particularly prominent visually during the summer months, when the dark foliage of the oak trees contrasts starkly with the golden-colored grassland. The same can be said for the stand of Tree of Heaven north of Pleasant Grove Creek. The WRSP site is not visible from any designated State scenic highway.

Views from the WRSP

Views to the north, south, and west of the WRSP Area reveal expansive open space grasslands, similar to the terrain of land in southern Placer County. At the western edge of the Fiddyment Ranch site and north and east of the Westpark area lies the PGWWTP, currently under construction. Development within the area consists of a large parking lot and several large (approximately three-story) wastewater treatment facility buildings (refer to Figure 4.13-5). These bulky concrete buildings are visible throughout a large portion of the northern WRSP.

Northeast of the project site, on a clear day the Western Regional Sanitary Landfill is visible at a distance, presenting a view of graded, exposed earth. To the east, the Del Webb Sun City residential development is visible across Fiddyment Road, visually screened by a masonry wall and landscaping that includes curved lawn areas, walkways, and young trees and plants. An area north of Sun City and east of the WRSP Area is currently under construction for residential uses as part of the North Roseville Specific Plan. Also north of Sun City is a pistachio orchard, with manicured rows of pistachio trees. Long-range views to the north, south, and west are mostly composed of expanses of open grassland. On a clear day, long-range views to the east encompass the Sierra Nevada mountain range as well as the Sierra foothills.

Existing On-Site Visual Resources

Structures in the WRSP Area include a house at the northeastern edge of the project area, a house west of Fiddyment Road, south of Blue Oaks Boulevard, the Fiddyment Ranch homestead (refer to Figure 4.13-7 [Fiddyment Ranch (Photos I and J)] and Figure 4.13-8 [Fiddyment Ranch (Photos K and L)]), and the abandoned turkey farming facilities (refer to Figure 4.13-9 [Turkey Farm (Photo M)]). The existing visual resources present in the WRSP Area, and their prominent characteristics, are described below.

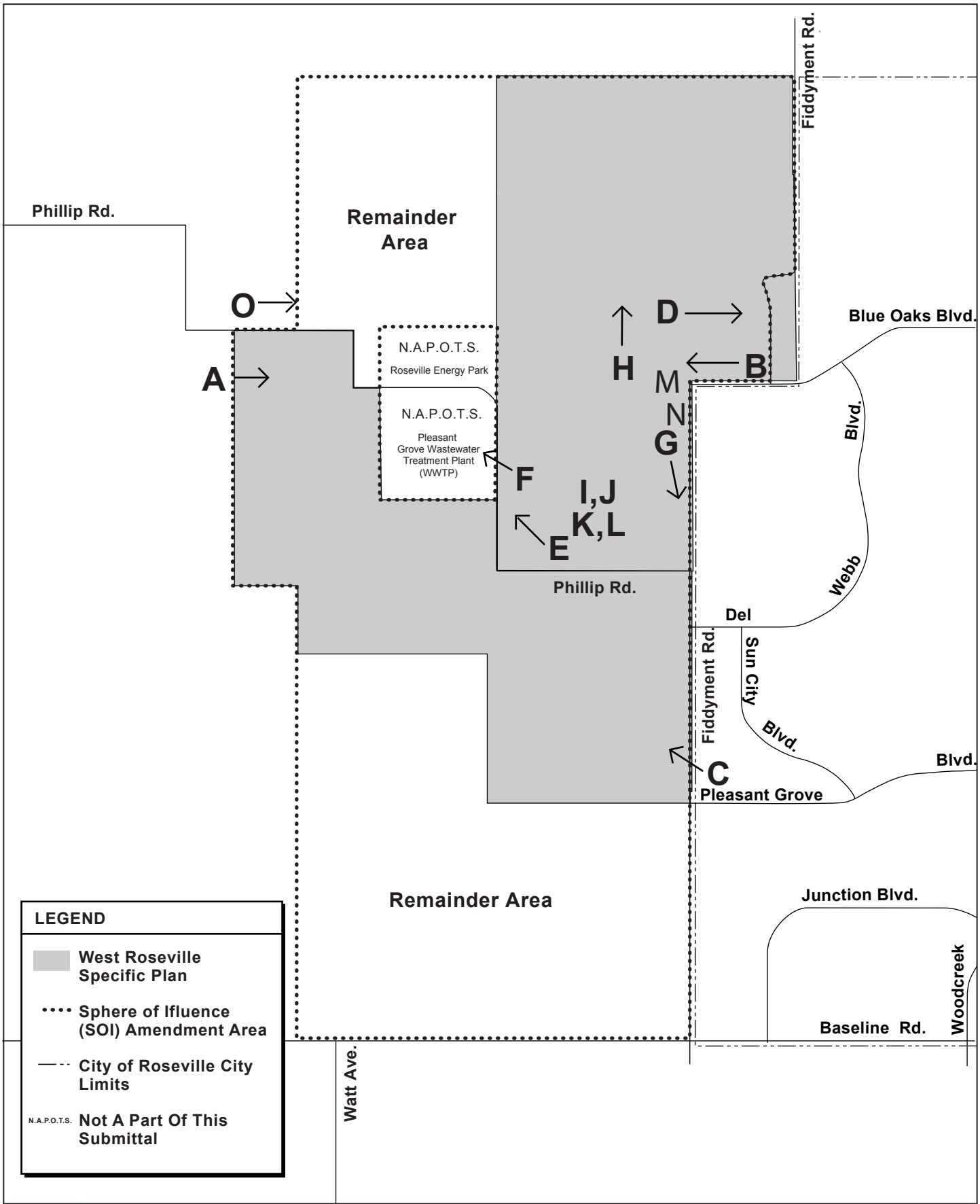


FIGURE **4.13-1**

Direction and Location of Photographic Views

Not to Scale

10659-00

***Source*:** EIP Associates, 2003

City of Roseville

EIP ASSOCIATES

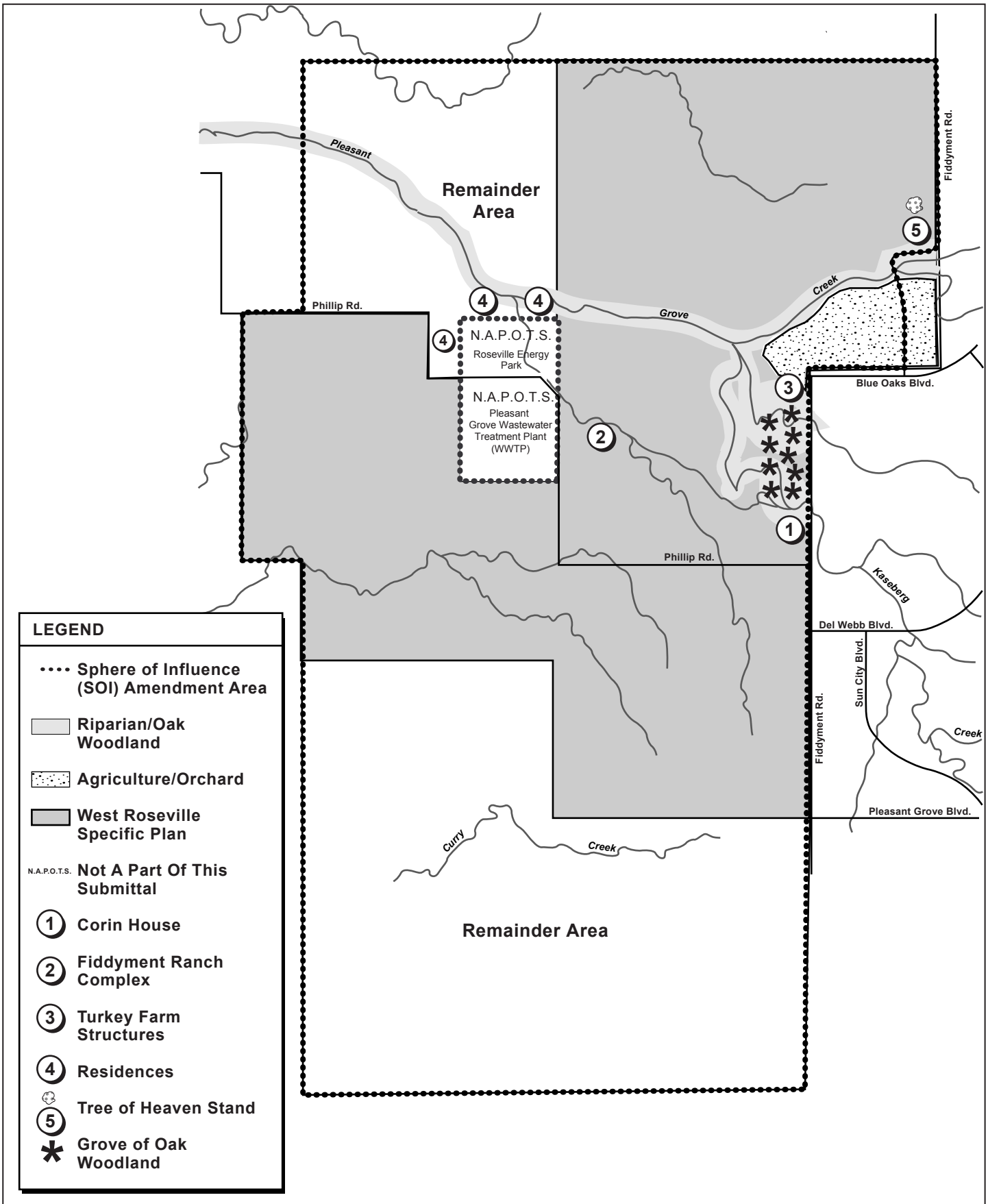


FIGURE **4.13-2**
Visual Elements

Not to Scale

10659-00

***Source*:** Wade Associates, 2003; EIP Associates, 2003

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Figure 4.13-3 View To and From the Project Site (Photos A and B)



A. View of West Roseville Specific Plan Area from West



B. View of West Roseville Specific Plan Area from East

FIGURE **4.13-3**

View To and From the Project Site (Photos A and B)

10659-00

Source: EIP Associates, 2003

City of Roseville

EIP ASSOCIATES

Figure 4.13-4 View To and From the Project Site (Photos C and D)



C. View of the West Roseville Specific Plan Area from the Southeast



D. View to the East from the West Roseville Specific Plan Area

FIGURE **4.13-4**

View To and From the Project Site (Photos C and D)

10659-00

Source: EIP Associates, 2003

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Figure 4.13-5 View To and From the Project Site (Photos E and F)



E. View to the North West from Central West Roseville Specific Plan Area (Wastewater Treatment Plant)



F. Wastewater Treatment Plant

FIGURE **4.13-5**

View To and From the Project Site (Photos E and F)

10659-00

Source: EIP Associates, 2003

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Figure 4.13-6 View To and From the Project Site (Photos G and H)



G. View of Del Webb Property from the West Roseville Specific Plan Area



H. Pleasant Grove Creek (Central Fiddyment Property)

FIGURE **4.13-6**

View To and From the Project Site (Photos G and H)

10659-00

Source: EIP Associates, 2003

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Figure 4.13-7 Fiddyment Ranch (Photos I and J)



I. Fiddyment Home



J. Fiddyment Home Rear View

FIGURE **4.13-7**
Fiddyment Ranch
(Photos I and J)

10659-00

***Source*:** EIP Associates, 2003

City of Roseville

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Figure 4.13-8 Fiddyment Ranch (Photos K and L)



K. Fiddyment Ranch Smokehouse



L. Fiddyment Ranch Cooler

FIGURE **4.13-8**
Fiddyment Ranch
(Photos K and L)

10659-00

Source: EIP Associates, 2003

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Figure 4.13-9 Turkey Farm (Photo M)



M. Turkey Farm Structures

FIGURE **4.13-9**
Turkey Farm (Photo M)

10659-00

Source: EIP Associates, 2003

City of Roseville

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Fiddyment Road Home

The existing residence located at the northeastern edge of the Fiddyment Ranch portion of the WRSP Area is located across Fiddyment Road from the pistachio orchard. It is a one-story, ranch-style house with a wood siding exterior in a light beige tone, with brown window trim. The property also contains a small pool, outbuildings, and scrap heaps. The house's frontage is screened by shrubs and mature trees.

Corin Residence

An existing single-family residence is located west of Fiddyment Road south of Blue Oaks Boulevard (refer to Figure 4.13-10 [Corin House (Photo N)]). This residence was built in 1949 and is a four-bedroom, two-and-a-half-bathroom residence that will remain in the WRSP Area in an area designated for low-density residential.

Fiddyment Ranch

The Fiddyment Ranch, located near the southwest edge of the Fiddyment Ranch Main Complex portion of the WRSP Area, is a large two-story colonial-style home. The home, fronted by four large columns, has a white, wood-slat exterior, and is surrounded by a white wood and wrought-iron fence (refer to Figure 4.13-7). Directly behind the large main house within the back yard area is a small, square, brick cooler with a rustic, aged wood door. Numerous trees, shrubs, and flowering bushes provide landscaping to the property. To the back of the large house are several barns and shed structures (refer to Figure 4.13-8).

One structure behind the main house is a small, one-story wood shed with a two-story-tall brick tower smokehouse. The main shed structure has an exterior covered in weathered white paint, while the tower is whitewashed brick with a white wood accent at the top, beneath an A-line gable. A rustic, weathered, white wood door provides entrance to this structure at the base of the brick tower (refer to Figure 4.13-8).

A second shed structure is located north of the brick-towered shed. This building is also one story in height and constructed of wood that was painted white and has now aged; however, this structure is longer and slightly larger in scale than the shed structure attached to the brick tower. The structure also has a light tan roof, as opposed to the painted wood roof of the other, smaller shed. A small covered porch area faces west and houses an entrance to the structure.

West of these two-shed structures is a large barn constructed of dark wood. A large, two-story peaked-roof entrance faces east toward the house and shed structures, protruding from the main structure, which presents windows and doors only on the first story, the rest of the frontage being dominated by a

large, forward-sloping roof with large reflective shingles. The roof of the barn is in disrepair, and some shingles are missing, exposing the underlying wood slats of the roof.

Finally, north of the sheds and barn lies another barn-like structure. With two roof ridges, this large building encased in reflective aluminum siding appears to be part barn and part dwelling. The larger portion of the structure, located on the west side, appears to be a small barn. Attached to this building segment is a smaller structure with a lower roofline.

Turkey Farm

The abandoned turkey farm is located in the southeastern Fiddyment portion of the WRSP Area. Structures at the turkey farm consist of a small wood and wire chicken coop, a few small sheds and a few long, one-story corral-type structures. These structures are constructed of wood and painted white. The structures have been damaged by a tornado and are in an advanced state of disrepair, with the interior often visible through warped or missing patches of wall structure. The boards that cover the exterior appear to be thin plywood.

South of these structures stands a large, white wood barn. The peak of the barn's roof is off center, occurring more to the eastern side and resulting in a longer roofline on the western side. A small protruding element rises from the western side of the structure's roof, standing taller than the rest of the building and rising straight upward. This element is topped with a slightly sloped roof, in contrast to the main sides of the barn, which extend outward with a sharply downward-sloping roof angle. A large, open entrance, approximately one-and-a-half- to two-stories tall, is located at the base of the tall central tower. A small, one-story free-standing shed constructed of aged wood painted white and a tall, white cellular tower are located adjacent to the barn.

Remainder Area

The topography in the Remainder Area is similar to that of the WRSP Area, consisting of flat to rolling hills and grassland areas. Existing development in the Remainder Area is limited to a commercial dog kennel and a few sparsely distributed rural residences (refer to Figure 4.13-11 [Remainder Area (Photo O)]). Pleasant Grove Creek extends into the Remainder Area, meandering from west to east in the northern Remainder Area parcel. In addition, Curry Creek runs through a portion of the southern Remainder Area parcel. Oak trees and other riparian vegetation abound along these creeks, and trees are scattered sparsely throughout the Remainder Area, occasionally in clusters. A small portion of the Remainder Area includes a portion of Reason Farms.

Figure 4.13-10 Corin House (Photo N)



N. Corin House

FIGURE **4.13-10**
Corin House (Photo N)

10659-00

Source: EIP Associates, 2003

City of Roseville

EIP ASSOCIATES

Figure 4.13-11 Remainder Area (Photo O)



O. North Remainder Area, View from west

FIGURE **4.13-11**
Remainder Area (Photo O)

10659-00

Source: EIP Associates, 2003

City of Roseville

EIP ASSOCIATES

Views

Short and middle-range views from the Remainder Area include the rolling grasslands of the WRSP Area and the Del Webb Specific Plan Area (described above). Reason Farms is visible northwest of the Remainder Area. The southern Remainder Area is primarily characterized as grassland and oak woodland. Some residential development is visible south of Baseline Road, which forms the southern border of the Remainder Area. Long-range views to the north, south, and west are mostly composed of expanses of open grassland. Long-range views to the east under clear weather conditions reveal the Sierra Nevada mountain range, as well as the Sierra foothills.

Surrounding Area

The areas surrounding the SOI Amendment Area consist mostly of rolling grasslands to the north, south, and west, with residential areas under development (North Roseville Specific Plan Phase 3, "Doctor's Ranch") to the east of the Fiddyment Ranch portion of the site, and existing residential development (Del Webb Sun City age-restricted community) east of Fiddyment Road (refer to Figure 4.13-3). The County lands to the north of the WRSP Area consist of rolling grasslands. Farther to the northeast lies the Western Regional Sanitary Landfill, approximately one mile from the northern boundary of the WRSP Area. To the west and south, the surrounding area in the County is undeveloped rolling grasslands. Farther to the east, there are several industrial operations and businesses. Farther south are residential and commercial developments.

4.13.3 Regulatory Setting

Federal and State

There are no specific federal or State regulations pertaining to visual quality.

Local

City of Roseville General Plan

The City of Roseville General Plan includes goals and policies for enhancement and protection of visual quality. Please refer to Appendix C for a complete list of all applicable City goals and policies. The following policies are directly applicable with visual characteristics:

- City of Roseville General Plan Policies LG 1-9

City of Roseville Community Design Guidelines

The City of Roseville adopted Community Design Guidelines ("Guidelines") on December 6, 1995. The purpose of these Guidelines is to "implement the goals and policies of the Community Form and the Community Design components of the Roseville 2010 General Plan" (City of Roseville 1995). The Guidelines list specific site design such as vehicle access, grading fencing, storage, etc; architectural guidelines that specify exterior treatment of buildings; and specific lighting guidelines for commercial, office, industrial and multi-family residential development within the City. The City's Specific Plans each include design guidelines more restrictive or detailed than the City Guidelines and supplement the Guidelines. Design Guidelines have been prepared for Specific Plans in the City, including those adjacent to the project site, the North Roseville Specific Plan and Del Webb. The WRSP contains its own Design Guidelines. If the Remainder Area is annexed, new development proposals would either include WRSP Design Guidelines or be subject to the City's Community Design Guidelines.

West Roseville Specific Plan Design Guidelines

The WRSP Design Guidelines include provisions for visual screening, lighting, and setbacks that would reduce visual impacts and streamline building designs.

- All arterial streets will have landscaped medians
- All arterial streets will include a 35-foot landscape corridor and an 8-foot-wide sidewalk
- Collector Streets would include a 25-foot-wide landscape corridor adjacent to single-family residential, nonresidential, or high-density residential
- Bridges in open space areas shall be designed in a manner consistent with the Westpark and Fiddyment Ranch themes, using materials particular to each of the communities
- Bridges would be designed to blend seamlessly with their surroundings and landscaped so as to conceal grading operations, abutments, and other construction activities from view
- Traditional street light fixtures in a City of Roseville accepted style will be used on streets, gateways, bridges, and path approaches, other lighting should be themed appropriately with development
- Lighting in underpasses shall be per City of Roseville standards
- All production fencing visible from streets will be painted or stained
- Retaining walls are to be avoided; however, if necessary they shall be constructed of split-face block and cap, consistent with area soundwall materials
- Non-garage-dominant plans and detached/setback garages are encouraged in exchange for relaxation of current City setback and lot standards

- Side entries to garages are encouraged at corner lots
- Variable setbacks and lot widths will be allowed to provide for a mix of housing types and styles
- Front wing and side yard fencing adjacent to roads, parks, open spaces and paseos should be painted or stained
- Builders are encouraged to develop corner-specific architecture that is signature and sets the design tone for the neighborhood
- Corner-specific production fences are required
- All fences visible from streets should be painted or stained
- Access to home entries shall be broad and visible, porches, entries, and alcoves are encouraged on all homes
- Multi-family parcel sites are encouraged to have residential units oriented towards parks, opening onto them and reducing the need for excessive amounts of fencing and walls
- Paseos will be lit per City of Roseville standards with shielded lights so that light will not spill into residential lots
- If enhanced wood fences are used, they shall be stained on both sides
- All paseo fences and/or walls shall have vines to discourage graffiti
- Each neighborhood will provide access to parks, paseos, and open space corridors
- Fencing types include: open fencing 4 to 6 feet high in tubular steel, mesh or wrought iron; mesh fencing, brick, or other masonry pilasters or columns; or an open wood fence or wooden posts with cable
- A consistent palette of landscaping materials will be used throughout the multi-family developments for unity
- Medium-density housing should use high-quality materials and be arranged creatively on the site to allow for varied outdoor spaces and privacy
- Village Center building facades should emulate the character and composition of retail/commercial buildings found in the downtown of small towns. The use of tinted or reflective glass at ground level is prohibited
- Use of enhanced paving materials for sidewalks and pedestrian crosswalks
- Service areas and delivery areas would be screened from views from all streets, parking areas, and residential parcels
- All paseos will be landscaped in a manner consistent with landscape corridors and other public spaces within the Plan area
- Both sides of residential fence walls to be addressed aesthetically if they are visible from streets

- Where residential lots back up to open space, knee walls with or without a tubular steel fence on top will be used. If tubular steel fencing is required on top of the knee wall, the top of the fence/wall combination will not exceed 5 feet.
- Where residential lots back up to schools a 6-foot enhanced wood fence consistent with corridor walls shall be constructed
- Landscape at multi-family housing shall always be used at building foundations (except at garage doors) so as to transition buildings into their sites as well as provide for a garden environment;
- Blank walls shall be landscaped with taller plant materials so as to break up building mass and provide shading
- Utilities and mechanical units shall be screened from view from all streets and individual units
- High-density residential project entries and signage shall be consistent with the individual project themes for Westpark and Fiddyment Ranch
- All lighting for high-density residential projects shall be themed appropriately with the development. Decorative, non-City-standard fixtures are encouraged
- Lighting in pedestrian areas of high-density residential projects is encouraged to be no more than 8 feet tall, with shorter fixtures preferred
- Lighting shall be directed and shielded so as to minimize spill into residential units
- Parking and drive area lighting within multi-family residential projects is encouraged to be mounted on as short of poles as possible to create a pedestrian orientation and to minimize light spill into second floor units

4.13.4 Impacts and Mitigation Measures

Methods of Analysis

The positive or negative value attached to changes in visual character is largely subjective. This EIR does not seek to assign a judgment of "good" or "bad" change; rather, it identifies any substantive change as significant.

A description of the SOI Amendment Area, including both the WRSP Area and Remainder Area, has been constructed from visits, aerial oblique photographs, site photographs, and topographic maps. The City of Roseville General Plan, as well as other applicable planning documents, was reviewed to determine what visual elements have been deemed valuable by the community. Analysis focuses on the manner in which development could alter the visual elements or features that exist in or near the WRSP Area and Remainder Area.

This analysis assumes that development within the WRSP Area and the Remainder Area would comply with the City's General Plan policies, Improvement Standards, and Design Standards. Therefore, such policies and standards are not specifically identified as mitigation.

The baseline for the analysis in this section is existing conditions. Cumulative impacts on aesthetics and visual resources are addressed in Chapter 5 (CEQA Considerations).

Standards of Significance

For the purposes of this EIR, a significant impact would occur if development proposed in the WRSP Area or Remainder Area would do any of the following:

- Substantially change the existing visual character (day or night) of the site, including alterations to the natural terrain or topography
- Create a substantial adverse effect on a scenic resource
- Introduce uses that are visually incompatible with existing or planned uses in areas that have visual access to the plan area
- Create new sources of light and/or glare that would directly illuminate adjacent and nearby residences or public uses

Impacts

IMPACT 4.13-1:	ALTERATION OF THE VISUAL CHARACTER OF THE SITE AND VICINITY.	
Applicable Policies and Regulations:	Roseville General Plan Policies LG 1-9 Roseville Community Design Guidelines	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	None available	None available
Significance after Mitigation:	Significant and Unavoidable	Significant and Unavoidable

Development of the project area would convert over 4,000 acres of currently undeveloped grassland to urban uses. The introduction of residences, infrastructure, and commercial and industrial buildings in an area that is presently undeveloped would change the existing visual character of the area. Potential impacts associated with the WRSP and Remainder Areas are discussed below.

West Roseville Specific Plan

The visual character of the WRSP Area is dominated by open, rolling grasslands, and is visible from a variety of short- and long-range viewpoints. The areas to the east of the WRSP Area have been developed with residential uses. Development of the WRSP Area would extend this urban edge. However, although the WRSP Area would be visually compatible with surrounding developed uses, it would substantially and permanently alter the existing visual character of the WRSP Area by introducing an extensive roadway network, houses, offices, commercial and industrial uses, and other urban facilities into an undeveloped area.

The WRSP Area would convert an estimated 2,477 acres of the approximately 3,162 acres of currently undeveloped grassland into urban uses, including parks. Of the 2,477 acres slated for development, approximately 270 acres would be developed as parks. Approximately 670 acres (not included in the 2,463 acres) would be retained as open space. The stand of Tree of Heaven located north of Pleasant Grove Creek on the east site near Fiddyment Road would be removed as part of park site improvements. Conversion of the majority of the site to urban uses, and loss of mature, natural landscaping, loss of Tree of Heaven grove, and removal of some oak trees as part of infrastructure improvements (refer also to Section 4.7 [Biological Resources] for a brief discussion of the biological value of the Tree of Heaven grove) would represent a significant and unavoidable impact for which there are no feasible mitigation measures that would reduce the impacts to an acceptable level. Because the majority of grasslands on the site would be developed, and the remaining open space areas would be either adjacent to or surrounded by development, the character of the drainage corridors would change from meandering rural streams to open space corridors running through an urban landscape. Similarly, if the Fiddyment Ranch complex is retained in Fiddyment Park, it would convey a sense of the visual character of rural Placer County, but the context in which it is set would be altered.

Within the WRSP, south of the PGWWTP adjacent to Phillip Road, two potable water tanks, and two reclaimed (or recycled) water tanks would be visible. The two potable water tanks would be approximately 25 to 30 feet in height and approximately 170 feet in diameter. The two potable water tanks would also include a 50-foot-wide fenced area surrounding the two tanks. The recycled water tanks would be located adjacent to the northeast corner of the PGWWTP west of Phillip Road and south of Blue Oaks Boulevard. The potable water tanks would be located approximately 200 feet from the centerline of Phillip Road behind pump equipment and a recycling drop-off area. Along the west side of Phillip Road, a 20-foot-wide landscape corridor is proposed, with low shrubs and trees and an open fence adjacent to the PGWWTP and tank site. The recycled water tanks would be approximately 25 to 30 feet high, with a tank diameter of approximately 75 feet. Due to the height of the tanks, it is anticipated

they would be visible from Phillip Road, the regional sports complex park, and the light industrial areas to the south. Once the trees along Phillip Road mature, the tanks would become less visible.

In addition, 60 kV overhead electrical transmission lines will traverse the WRSP Area (shown on Figure 4.11-7 [West Roseville Specific Plan Electric Substation and 60 kV Power Line Easements] in Section 4.11 [Public Utilities] of this EIR). These overhead electrical transmission lines will be located within a public utility easement. The 60 kV line easement is located adjacent to the north side of Blue Oaks Boulevard, which includes a 35-foot-wide landscape corridor. Therefore, the transmission poles will be buffered, though still visible, from vehicles traveling along Blue Oaks Boulevard. In addition, a 60 kV easement will traverse through a small area of business professional, open space and light industrial uses located east of West Side Drive north of Pleasant Grove Boulevard. This 60 kV line is not located near any residential uses with the exception of a small area located to the west. No public gathering spaces are located near this easement either. Views of the WRSP Area would include these power lines as part of the urban landscape. In addition, landscaping would be included within the easement area. Also shown in Figure 4.11-7 is an alternate 60 kV power line easement following Pleasant Grove Boulevard east to the existing Fiddyment substation in the event that off-site easements are not available or not acquired.

A new electric distribution substation would be constructed north of Blue Oaks Boulevard, between Hayden Parkway and Fiddyment Road adjacent to the proposed commercial area. The substation would be on a 1-acre site with a 12-foot-high fence surrounded by a landscape buffer. Electrical structures associated with the substation would range in height from 10 to 40 feet. Approximately two 60-foot-tall, 60 kV tubular steel poles would also be installed in order to connect the substation to the proposed power lines along Blue Oaks Boulevard. A paved driveway would be installed within the substation for internal circulation of vehicles.

The Roseville General Plan Policies LG 1-9 serve to promote the visual compatibility of developments through the application of community design standards. Specifically, Policy LG 6 requires site and building designs that are in scale and compatible with adjacent development in character. In addition, the WRSP Design Guidelines include specific screening requirements for utilities and mechanical units. Implementation of the Roseville General Plan Policies and the WRSP Design Guidelines would help reduce the significance of the impacts of the utility infrastructure, but not to a less-than-significant level. As such, the impact would remain **significant and unavoidable**.

Off-Site Improvements

Certain components of the WRSP would be constructed off site, that is, outside of the WRSP. Off-site improvements would include roads, electrical infrastructure (including transmission lines), water, and sewer lines. Roads and water and sewer lines would not affect the visual character of the area, because they would be at or below grade. Overhead electrical transmission lines located off site, including 60 kV lines, would be visible on the WRSP. Electrical lines, similar to the water and sewer lines to serve residences, would be placed below grade.

Development of the WRSP Area would be subject to the Roseville Community Design Guidelines, the City's Zoning Ordinance, and the WRSP Design Guidelines, which address factors such as the size, type, and treatment of buildings, setbacks, and landscaping. While these standards would beneficially guide the scale and consistency of architecture, as well as the configuration of site improvements and landscaping, they would not preserve the existing character of the site. No mitigation measures are available to reduce the significance of this impact. Therefore, this impact would remain **significant and unavoidable**.

Remainder Area

Similar to the WRSP, the visual character of the Remainder Area is dominated by open, rolling grasslands, and is visible from a variety of short- and long-range viewpoints. The areas to the east and northeast of the Remainder Area have been developed with residential and other uses. To a certain extent, development of the Remainder Area would be an extension of this urban edge. This EIR assumes the Remainder Area would consist of similar land uses as the WRSP, and would be governed by the City Community Design Guidelines or guidelines developed for future Specific Plan proposals once the site is annexed to the City. Therefore, it is anticipated future development would be visually compatible with surrounding developed uses, including the WRSP. Nonetheless, development would substantially and permanently alter the existing visual character of the Remainder Area by introducing offices, commercial and residential uses, roadways, and other urban facilities into an undeveloped area.

Approximately 365 acres of the Remainder Area are assumed to remain in open space, including the entire Pleasant Grove Creek floodplain, which encompasses most riparian areas and a large portion of trees within the Remainder Area.

While the City's Community Design Guidelines and Specific Plan Design Guidelines, if proposed, would beneficially guide the scale and consistency of architecture, as well as the configuration of site improvements and landscaping, they would not preserve the existing character of the Remainder Area.

No mitigation measures are available to reduce the significance of this impact. Therefore, this impact would remain **significant and unavoidable**.

IMPACT 4.13-2:	**NEW SOURCES OF LIGHT AND GLARE.**	
Applicable Policies and Regulations:	Roseville Community Design Guidelines WRSP Design Guidelines	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Significant	Significant
Mitigation Measures:	MM 4.13-1 (a) (Restrict high-watt light usage and hours for park facilities) MM 4.13-1(b) (Site high-intensity lighting so as to minimize nuisance) MM 4.13-1(c) (Use low-glare materials for new development) MM 4.13-1(d) (Avoid light spill over into riparian habitat)	MM 4.13-2 (Light and glare policies)
Significance after Mitigation:	Significant and Unavoidable	Significant and Unavoidable

The introduction of artificial light into a rural area contributes to the change in that area's character. In addition, lighting can be an annoyance if it spills into backyards or homes, as it can interfere with sleeping, watching television, or other activities. Development of the project area would result in light from urban development such as residences and commercial and industrial uses, as well as recreational facilities, streetlights, and vehicles, thus increasing the ambient nighttime illumination level and resulting in a substantial change in the amount of light generated in the project area. This would also alter nighttime views to the site, which are currently uninterrupted by light pollution from the area and would become views of a developed, lit environment. Potential impacts are discussed below.

West Roseville Specific Plan

The WRSP Area is currently undeveloped grazing land, and contains very few light sources (primarily several residences in the northeast portion of the WRSP, and the PGWWTP). Development of the proposed WRSP would result in a substantial change in the amount of light generated on the site, and alter nighttime views of the site. There would be light from residences, businesses, industrial areas, streetlights, and vehicles, all which would increase the ambient nighttime illumination level. In addition, parks and schools with sports facilities could use high-intensity lights for playing fields, which would create increased nighttime light. With development of the WRSP, views to the project site that are currently uninterrupted by light pollution from the site would change to views of a developed, lit environment.

The City of Roseville Community Design Guidelines specify that "cut-off" fixtures be used. These fixtures are screened to direct light into specific areas and prevent it from spilling into areas where it is not required. For example, with cut-off fixtures, a security light can be directed entirely toward the parking area and "cut off" at the fence line.

The WRSP includes six school sites and two Citywide parks, all of which would be adjacent to residential areas. Potential visual incompatibilities associated with the high school and Citywide parks would be from lighting associated with stadiums or ballparks that could illuminate adjacent residential areas. The WRSP Design Guidelines do not include any provisions to control spillover lighting into commercial and business professional uses (refer to Applicable WRSP Measures).

City parks typically do not use cut-off fixtures because athletic field lights are only used during games and are shut off after games. The lights do not remain on all night. Lighting of parks (athletic fields) could cause light and glare in adjacent residential neighborhoods during these hours. However, to ensure impacts associated with exterior building lights, park lights, and street lights would be reduced, MM 4.13-1(a) would ensure that such lighting would not use high-powered floodlights, and would not remain on past 11:00 P.M. Additionally, MM 4.13-1(b) recommends siting of these light-producing uses to minimize impacts on adjacent sensitive uses and shielding of light fixtures. Low-glare materials would be utilized for new buildings to reduce glare impacts as recommended by MM 4.13-1(c). To ensure lighting would not adversely affect nesting birds in open space areas, especially along Pleasant Grove Creek and Curry Creek, MM 4.13-1(d) would reduce light impacts on nearby riparian habitat through design measures and light direction and placement. In addition, the WRSP Design Guidelines include measures for using landscaping to provide further visual screening. Although proper site design and timing restrictions are likely to reduce lighting impacts to a large degree, if a level of lighting appropriate for competitive-level sporting events is necessary, it may not be feasible to significantly reduce the amount of light. Additionally, because construction of sports facilities associated with schools would be under the jurisdiction of the School Districts, implementation of WRSP Design Guidelines and these mitigation measures is at the discretion of the School Districts. The City of Roseville cannot compel the School Districts to implement these measures. Should the Districts choose not to implement the WRSP mitigation measures for facilities within their jurisdiction, reduction of nighttime lighting impacts would be compromised.

The WRSP, due to its current open grassland character, is not currently a source of daytime glare. Glare is caused by light reflection from pavement, vehicles, and building materials such as reflective glass and polished surfaces. During daylight hours, the amount of existing glare depends upon the intensity and direction of sunlight; at night, artificial lighting can create glare. Particularly in commercial and

business/professional areas, windows comprise a large proportion of building surfaces, creating a potential for glare that would increase with the use of reflective coatings and reflective building materials. The problem is most noticeable with large buildings that have reflective surfaces. Residential and small commercial buildings are not generally considered sources of substantial glare. Daytime glare could result from commercial and office buildings associated with the WRSP. MM 4.13-1(c) would ensure that low-glare materials would be used for development of new large-scale buildings associated with the WRSP.

MM 4.13-1(a) through MM 4.13-1(c), the City of Roseville Design Guidelines, and the WRSP Design Guidelines provide effective methods to reduce light and glare impacts. Nonetheless, the change in the level of light and glare on the project site would remain **significant and unavoidable**, because the area, which currently lacks light and glare sources, would still be visibly changed in the context of nighttime lighting and daytime glare.

Remainder Area

Development of the Remainder Area would result in light from urban developed uses, increasing the ambient nighttime illumination level and resulting in a substantial change in the amount of light generated on the site.

Similar to the WRSP, the Remainder Area would be subject to City of Roseville Design Guidelines requiring use of "cut-off" light fixtures, and could include land uses with intense light sources, such as ball fields and stadiums. MM 4.13-2 would reduce impacts on nighttime lighting for the area by requiring that future Specific Plans and development plans include policies and/or conditions to ensure that stadium and ball field lighting is shielded and hours of operation are limited.

In addition, the Remainder Area, like the WRSP, is currently open grassland, and is not currently a source of daytime glare. Development of buildings associated with development of the Remainder Area could result in daytime glare. MM 4.13-2 would also ensure that low-glare materials would be used for development of new buildings associated with the Remainder Area.

While MM 4.13-2 and the City of Roseville Design Guidelines provide some methods to reduce the increase in light and glare, the change in the level of light and glare in the Remainder Area would remain **significant and unavoidable**, because the area, which currently lacks light and glare sources, would still be visibly changed in the context of nighttime lighting and daytime glare.

IMPACT 4.13-3:	VISUAL INCOMPATIBILITY BETWEEN LAND USES.	
Applicable Policies and Regulations:	Roseville Community Design Guidelines WRSP Guidelines	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None required	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant

The project area is bordered by a mix of residential, light industrial, and open agricultural areas. Future development would introduce new residences, infrastructure, commercial, and industrial uses in this area. It is assumed new development would be an extension of what currently exists within the City of Roseville to the east. To address new development, the City of Roseville has developed specific Community Design Guidelines. The City's Community Design Guidelines would help streamline design of future development to be visually compatible with existing adjacent land uses. The Community Design Guidelines specify site design, architectural treatment, screening, signage, and lighting requirements for commercial office, industrial, and multi-family residential development. The WRSP includes additional Design Guidelines to address visual compatibility between developed uses. In addition, it is assumed future development within the Remainder Area would prepare specific design guidelines to ensure development would be internally compatible. Potential impacts of the proposed project are discussed below.

West Roseville Specific Plan

Adjacent land uses include a large residential development to the east and northeast, the PGWWTP, and adjacent orchards and grazing land. Development of the WRSP Area would result in construction of residences, roadways, commercial, office, and industrial areas, as well as other urban development features. Essentially, development of the WRSP Area would be an extension of existing urban development in the City of Roseville to the east. The WRSP has established a set of Design Guidelines and standards for development within the WRSP. These guidelines and standards include measures for landscaping, lighting, open space areas, location of land uses, and utility and roadway placement and design. In addition, development of the WRSP Area would be subject to the City of Roseville Community Design Guidelines (discussed above), as are adjacent land uses. Land uses within the WRSP Area would be visually compatible with one another, in compliance with the City of Roseville Community Design Guidelines and the WRSP Design Guidelines. Compliance with the City's Community Design Guidelines, the WRSP open space element, and the WRSP Design Guidelines would ensure that the potential for visual incompatibility would be considered a **less-than-significant** impact.

Remainder Area

The Remainder Area is bordered primarily by open agricultural areas, with residential areas to the northeast of the southern portion of the Remainder Area, and the WRSP Area between the two Remainder Area parcels. Development of the Remainder Area could result in new residential, commercial, and office/light industrial facilities. Adjacent development would include the PGWWTP and the WRSP, which would include residences, roadways, commercial, office, and industrial areas, as well as other urban development features. Like the WRSP, future development in the Remainder Area would comply with the City of Roseville's Community Design Guidelines. These guidelines would direct design of the Remainder Area to be visually compatible with adjacent land uses, because all would be subject to these same design parameters. In addition, land uses within the Remainder Area would be visually compatible with one another, in compliance with the City of Roseville's Community Design Guidelines.

Because development in the Remainder Area would conform to the City of Roseville's Community Design Guidelines and thus be visually compatible with one another as well as surrounding land uses, and because each of those areas would also be visually cohesive internally, the Remainder Area would also be visually compatible with adjacent and internal land uses. Therefore, this would be a **less-than-significant** impact.

IMPACT 4.13-4:	**DEGRADATION OF SCENIC RESOURCES.**	
Applicable Policies and Regulations:	None available	
	WRSP	**Remainder Area**
Significance with Policies and Regulations:	Less Than Significant	Less Than Significant
Mitigation Measures:	None required	None required
Significance after Mitigation:	Less Than Significant	Less Than Significant

There are no scenic roads, resources, or views within or adjacent to the project area. In addition, the area is not designated a scenic area in the City of Roseville General Plan or the Placer County General Plan. Long-range views include views of the Sierra Nevada Mountains to the east while short-range views include views of adjacent residential within the City of Roseville to the east and undeveloped lands to the north, south and west. In addition, short-range views of the area are available from adjacent residential and undeveloped areas to the east, north and south. Development within this area would change existing views, and impacts are discussed below.

West Roseville Specific Plan

The proposed WRSP would result in large-scale development projects that could impair views of the Sierra Nevada and undeveloped lakes by placing buildings within view corridors. The WRSP includes open space areas that could open up view corridors from within the site, but views would still be obstructed by surrounding development. However, because these views are not designated scenic vistas, development of the WRSP would not create a substantial adverse effect on a scenic resource. Therefore, this is considered a **less-than-significant** impact.

Remainder Area

Like the WRSP, proposed development in the Remainder Area would result in large-scale development projects that could impair views by placing buildings within view corridors. However, because these views are not designated scenic vistas, development of the Remainder Area would not create a substantial adverse effect on a scenic resource. Therefore, this is considered a **less-than-significant** impact.

Mitigation Measures

MM 4.13-1(a): Restrict High-Watt Light Usage and Hours for Park Facilities (Impact 4.13-2 – WRSP)

In order to reduce the effects of nighttime illumination from development associated with the WRSP, high-powered floodlights will be discouraged for recreational or other facilities within the WRSP. In addition, such lights shall not be used later than 11:00 P.M. if located within 300 feet of residences. The developers shall be required to disclose to all adjacent residential areas that a regional park is located nearby that will contain outdoor lighting.

MM 4.13-1(b): Site High-Intensity Lighting so as to Minimize Nuisance (Impact 4.13-2 – WRSP)

High-Intensity light producing uses, such as stadiums and ball fields, within the WRSP Area shall be located and oriented to minimize visual impacts on adjacent residential areas located within 300 feet. Lighting for stadiums and ball fields should be shielded and designed to distribute light in the most effective and efficient manner, using the minimum amount of light to achieve the necessary illumination for the use, as defined by suggested lighting standards for competitive play. The developers shall be required to disclose to all adjacent residential areas that regional park/school uses are located nearby that will contain outdoor lighting.

MM 4.13-1(c): Use Low-Glare Materials for New Development (Impact 4.13-2 – WRSP)

In order to reduce the effects of daytime glare from development of commercial, office, and industrial uses within the WRSP, building developers shall make use, when feasible, of low-glare materials.

MM 4.13-1(d): Avoid Light Spill Over Into Riparian Habitat (Impact 4.13-2 – WRSP)

Outdoor lighting shall be placed, designed, and directed so as to avoid light spill over into the riparian habitat of Pleasant Grove or Curry Creek and Open Space Preserve Areas.

MM 4.13-2: Light and Glare Policies (Impact 4.13-2 – Remainder Area)

Specific Plans and/or other development proposals for the Remainder Area shall include policies or conditions of project approval that reduce the effects of nighttime illumination and glare from the Remainder Area. The Specific Plans and/or development proposals shall include policies and/or conditions that require that lighting for stadiums and ball fields be shielded and designed to distribute light in the most effective and efficient manner, using the minimum amount of light to achieve the necessary illumination for the use, and that hours of operation be limited to avoid nuisances. In addition, these policies and/or conditions should ensure that outdoor lighting does not spill over into creeks or open space preserves, and that low-glare materials are used on office, commercial and industrial buildings.

Chapter 5 CEQA CONSIDERATIONS

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. As part of this analysis, the EIR must also identify (1) significant environmental effects of the proposed project, (2) significant environmental effects that cannot be avoided if the proposed project is implemented, (3) significant irreversible environmental changes that would result from implementation of the proposed project, (4) growth-inducing impacts of the proposed project, (5) mitigation measures proposed to minimize significant effects, and (6) alternatives to the proposed project.

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS

Chapter 3 of this EIR, Summary of Environmental Effects, and Sections 4.1 through 4.13 of this EIR provide a comprehensive identification of the proposed project's environmental effects, including the level of significance both before and after mitigation.

5.2 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The environmental effects of the Proposed Project on various aspects of the environment are discussed in detail in Chapter 4 of this EIR. Significant impacts that cannot be avoided if the project is approved as proposed include:

SOI, WRSP, and/or Remainder Areas

- Potential incompatibility of internal land uses (WRSP and Remainder Areas)
- Conversion of agricultural land to developed uses (WRSP Area)
- Inducement of substantial population growth (WRSP and Remainder Areas)
- Increased traffic on City of Roseville roadways (SOI, WRSP, and Remainder Areas)
- Increased traffic on State Highways (SOI, WRSP, and Remainder Areas)
- Increased traffic on Placer County roadways (SOI, WRSP, and Remainder Areas)
- Increased traffic on City of Rocklin roadways (SOI and Remainder Areas)
- Increased traffic on Sacramento County roadways (SOI and Remainder Areas)

- Increased congestion due to proposed General Plan Pedestrian District Overlay (SOI and Remainder Areas)
- Increased emissions of fugitive dust and PM_{10} from grading and trenching activities (short term) (SOI, WRSP, and Remainder Areas)
- Increased emissions of ozone precursors during construction (short-term) (SOI, WRSP, and Remainder Areas)
- Increased emissions of air pollutants during operation
- Increase in off-site traffic noise (SOI and Remainder Areas)
- Loss of oak trees of greater than 6 inches dbh (short-term) (WRSP and Remainder Areas)
- Removal of historically significant properties and/or loss of historic integrity of such resources (WRSP and Remainder Areas)
- Siting of a school within one-fourth mile of the handling or transportation of hazardous materials (Remainder Area)
- Availability of water supplies to meet demand in wet years (Remainder Area)
- Availability of water supplies to meet demand in dry years (Remainder Area)
- Capacity of water treatment system to meet potable demand (Remainder Area)
- Increased demand for solid waste services at the landfill (WRSP and Remainder Areas)
- Increased demand for solid waste services at the MRF (WRSP and Remainder Areas)
- Construction debris demand for solid waste services (WRSP and Remainder Areas)
- Alteration of the visual character of the site and vicinity (WRSP and Remainder Areas)
- New sources of light and glare (WRSP and Remainder Areas)

Cumulative

- Agricultural land conversion (SOI and WRSP Areas)
- Increased traffic on City of Roseville roadways with Kaiser Medical Center (SOI and WRSP Areas)
- Increased traffic on City of Roseville roadways with Placer Parkway (SOI Area)
- Increased traffic on Placer County roadways with Placer Parkway (SOI Area)
- Increased traffic in Placer County under Cumulative 2020 conditions with additional development (SOI Area)
- Air quality emissions from construction (SOI and WRSP Areas)
- Air quality emissions from operation (SOI and WRSP Areas)
- On-site noise levels that exceed City standards (SOI and WRSP Areas)

- Off-site noise levels that exceed City standards (SOI and WRSP Areas)
- Loss of historic resources (SOI and WRSP Areas)
- Increased demand for water (SOI and WRSP Areas)
- Increased demand for water treatment (SOI Area)
- Increased demand for recycled water distribution system (SOI and WRSP Areas)
- Increased generation of solid waste (SOI and WRSP Areas)
- Increased stormwater runoff in the Curry Creek Watershed (SOI and WRSP Areas)
- Change in visual character (SOI and WRSP Areas)

5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

Section 15126.2(c) of the CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the proposed project. Significantly, Section 15126.2(c) states:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Generally, a project would result in significant irreversible environmental changes if

- The primary and secondary impacts would generally commit future generations to similar uses
- The project would involve a large commitment of nonrenewable resources
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy)

Development of the proposed project would result in the continued commitment of the majority of the project site to urban development, thereby precluding any other uses for the lifespan of the project. Restoration of the site to pre-developed conditions would not be feasible given the degree of disturbance, the urbanization of the area, and the level of capital investment.

Resources that will be permanently and continually consumed by project implementation include water, electricity, natural gas, and fossil fuels; however, the amount and rate of consumption of these resources would not result in the unnecessary, inefficient, or wasteful use of resources. With respect to operational

activities, compliance with all applicable building codes, as well as mitigation measures, planning policies, and standard conservation features, would ensure that all natural resources are conserved to the maximum extent possible. It is also possible that new technologies or systems will emerge, or will become more cost-effective or user-friendly, to further reduce the reliance upon nonrenewable natural resources. Nonetheless, construction activities related to the proposed project would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobiles and construction equipment.

As previously discussed, the project includes lighting and other energy conservation measures and will construct all structures with up-to-date energy-saving equipment. Lighting conservation efforts in new construction include installation of occupancy sensors to automatically turn off lights when not in use, lighting reflectors, electronic ballasts, and energy-efficient lamps. Conservation efforts are also expected to involve improved HVAC systems with microprocessor-controlled energy management systems. In addition, all development shall comply with specifications contained in Table 24 of the CCR.

The CEQA Guidelines also require a discussion of the potential for irreversible environmental damage caused by an accident associated with the project. While the project would result in the use, transport, storage, and disposal of hazardous wastes, as described in Section 4.9 (Hazardous Materials and Public Safety), all activities would comply with applicable State and federal laws related to hazardous materials, which significantly reduces the likelihood and severity of accidents that could result in irreversible environmental damage.

Implementation of the SOI Amendment, which includes the WRSP and Remainder Areas, would result in the long-term commitment of resources to urban development. The most notable significant irreversible impacts are a reduction in natural vegetation and wildlife communities; alteration of the visual character of the site; increased generation of pollutants; and the short-term commitment of non-renewable and/or slowly renewable natural and energy resources, such as lumber and other forest products, mineral resources, and water resources during construction activities. Operations associated with future uses would also consume natural gas and electrical energy. These irreversible impacts, which are, as yet, unavoidable consequences of urban growth, are described in detail in the appropriate sections of this EIR (see Chapter 4).

5.4 GROWTH-INDUCING IMPACTS

As required by Section 15126.2(d), an EIR must discuss ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also, the EIR must discuss the characteristics of the project that could

encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Growth can be induced in a number of ways, such as through the elimination of obstacles to growth, through the stimulation of economic activity within the region, or through the establishment of policies or other precedents that directly or indirectly encourage additional growth.

In general, a project may foster spatial, economic, or population growth in a geographic area if the project removes an impediment to growth (e.g., the establishment of an essential public service, the provision of the new access to an area; a change in zoning or general plan amendment approval); or economic expansion or growth occurs in an area in response to the project (e.g., changes in revenue base, employment expansion, etc). These circumstances are further described below:

- **Elimination of Obstacles to Growth:** This refers to the extent to which a proposed project removes infrastructure limitations or provides infrastructure capacity, or removes regulatory constraints that could result in growth unforeseen at the time of project approval
- **Economic Effects:** This refers to the extent to which a proposed project could cause increased activity in the local or regional economy. Economic effects can include such effects as the Multiplier Effect. A "multiplier" is an economic term used to describe inter-relationships among various sectors of the economy. The multiplier effect provides a quantitative description of the direct employment effect of a project, as well as indirect and induced employment growth. The multiplier effect acknowledges that the on-site employment and population growth of each project is not the complete picture of growth caused by the project.

5.4.1 Elimination of Obstacles to Growth

Removal of Infrastructure Limitations or Provision of Capacity

The elimination of physical obstacles to growth is considered a growth-inducing effect. A number of physical constraints to growth currently exist in the vicinity of the project. In summary, the primary growth obstacles in the area today include

- Limited capacity of the roadway system serving the western portion of the City of Roseville
- Limited capacity of the potable water system serving the western portion of the City of Roseville
- Limited capacity of the recycled water system serving the western portion of the City of Roseville
- Limited capacity of the wastewater system serving the west portion of the City of Roseville
- Limited capacity of the electrical transmission system in the western portion of the City of Roseville

Solutions to the road capacity limitations are included in the proposed WRSP, including extension of Blue Oaks Boulevard and Pleasant Grove Boulevard, and construction of many other roads to better connect portions of the road system. Extension of water supply lines and acquisition of additional supply would make water available to the WRSP. Additional groundwater wells would provide redundancy within the WRSP area, as well as to the rest of the City. Linkage of the Dry Creek and expansion of the Pleasant Grove Wastewater Treatment Plants would provide additional capacity in the recycled water system, and construction of a new electric substation and transmission lines would provide electrical transmission capacity in the WRSP area.

The construction of these infrastructure improvements would further extend urban infrastructure systems into an area where none currently exist, and could eliminate some of the infrastructure constraints that currently are obstacles to growth in the area west of Fiddyment Road and north of Baseline Road. For example, water, sewer, and drainage facilities in the WRSP have been sized to accommodate the needs of the Remainder Area.

Other Pending Projects

In addition to the infrastructure systems that would be developed as part of the WRSP, infrastructure systems may be extended west of Fiddyment Road and south of Baseline Road in unincorporated Placer County if the proposed Placer Vineyards project is approved.

The proposed Placer Parkway project, currently being considered and evaluated by the Placer County Transportation Agency, would bring a major new transportation corridor into the area, and would connect the WRSP area to the regional road system to the west, including State Routes 99/70 and the Sacramento International Airport.

In combination with the infrastructure systems that may be constructed in association with other projects, the infrastructure and utility systems that would be constructed as part of the WRSP would introduce major new infrastructure capacity to an area currently not served by urban systems and could eliminate some of the obstacles to growth that currently occur in the western Placer County region. However, while the infrastructure within the WRSP is sized to serve the entire SOI Amendment Area, which includes the WRSP Area and the Remainder Area, it is not designed with capacity to serve additional development outside of the City or the SOI Amendment Area. Figure 5-1 (Development Areas in the County) shows the location of other pending development within the County.

The western growth pattern could be further reinforced by other jurisdictions in the region. South of Baseline Road, Placer County has previously approved development in the Dry Creek-West Placer area

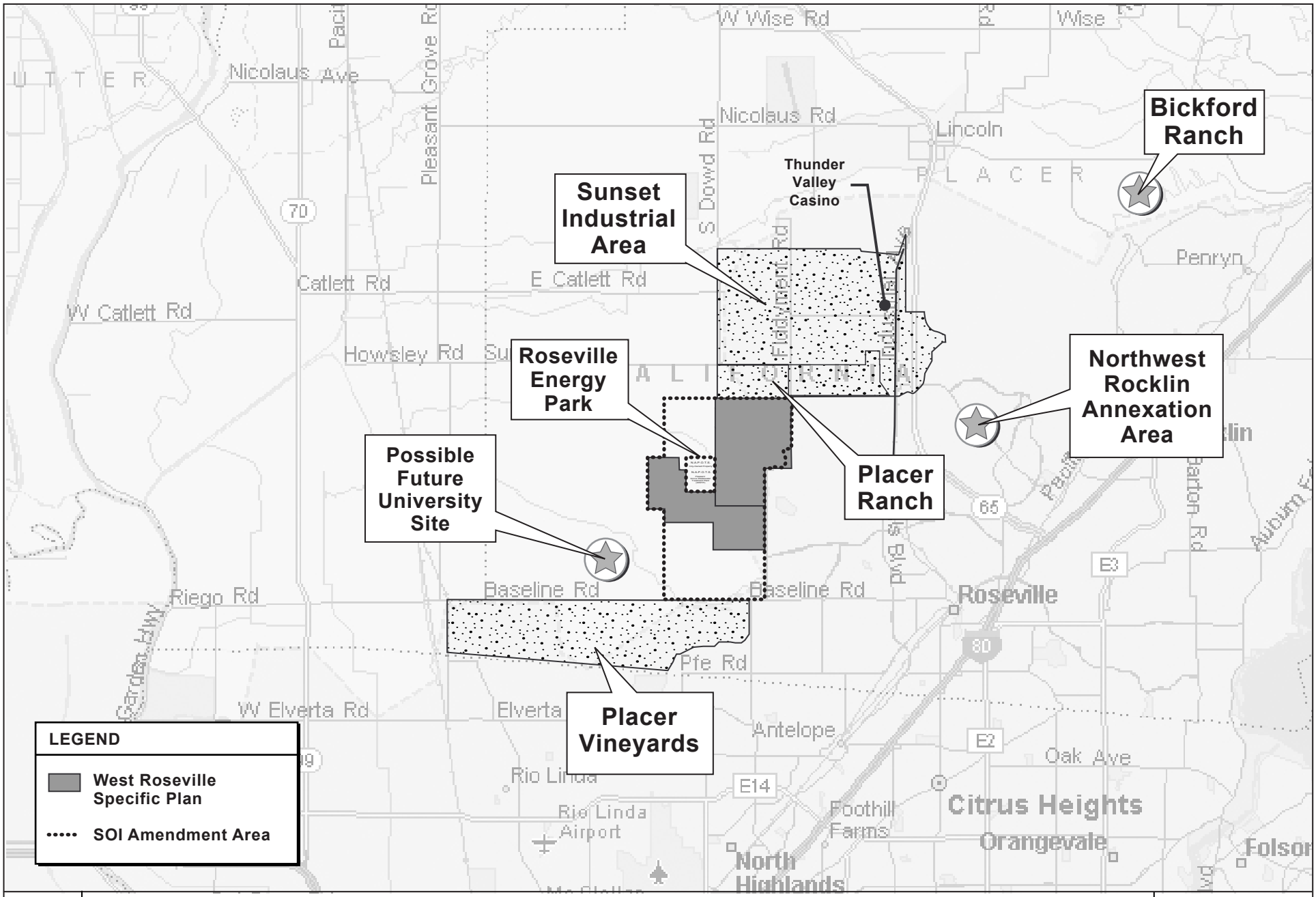


FIGURE **5-1**
Development Areas in the County

Not to Scale

10659-00

***Source*:** Microsoft Street & Trips 2002, EIP Associates, 2003

City of Roseville

EIP ASSOCIATES

and is currently considering the Placer Vineyards proposal that would extend development south of Baseline Road and west of Watt Avenue as far as the Sutter County line. Farther west, in Sutter County, the South Sutter Specific Plan calls for substantial urbanization within the Sutter County portion of the Natomas Basin. University communities have recently been proposed immediately west (De la Salle University) and north (Placer Ranch) of the SOI Amendment Area. In combination with the past and possible future actions of Placer County and Sutter County, approval of the proposed WRSP by the City of Roseville would remove Fiddyment Road as the long-standing regulatory boundary of development north of Baseline Road and could stimulate future growth in the west Placer County region.

5.4.2 Economic Effects

Stimulation of Economic Activity/Multiplier Effects

The discussion of the demographic changes caused by the WRSP and Remainder Area is presented in Section 4.2, Population, Employment, and Housing, which provides an estimate of the jobs that would be generated by operation of the WRSP and potentially the SOI Amendment Area. These estimates are based upon employment density factors contained in the MuniFinancial West Roseville Specific Plan Fiscal Impact Analysis, which is available for review at the City's Permit Center, 311 Vernon Street, Roseville, California.

In addition to the employment generated by the uses within the WRSP, additional local employment can be generated through what is commonly referred to as the "multiplier effect." The multiplier effect tends to be greater in regions with larger diverse economies due to a decrease in the requirement to import goods and services from outside the region. The Association of Bay Area Governments' (ABAG) San Francisco Bay Area Input-Output (I/O) model tracks production linkages among industries in a region and presents estimates of the multiplier effect within the region. The results of the model reveal the extent to which expenditures of employees, residents, and developers would lead to additional employment as a result of the construction or operation of a project. Although the economy of the Sacramento metropolitan area is somewhat less complex than that of the San Francisco Bay Area, the ABAG multipliers that have been calibrated for the Bay Area are representative of the economic multiplier interrelationships that would take place in the local economy.

Estimated employment generated through the multiplier effect is presented in Table 5-1. Two different types of additional employment are tracked through the multiplier effect. *Indirect* employment includes those additional jobs that are generated through the expenditure patterns of direct employment associated with the project. For example, workers in offices in the Industrial, Light Industrial,

Commercial, and Business Professional zones of the WRSP would spend money in the local economy, and the expenditure of that money would result in additional jobs. Indirect jobs tend to be in relatively close proximity to the places of employment and residence.

Table 5-1 Employment Growth1

Project Component	Direct Employment (jobs)	Indirect Factor[2]	Indirect Employment (jobs)	Induced Factor[2]	Induced Employment (jobs)
West Roseville Specific Plan					
Commercial	1,220	0.07	85	2.56	218
Business Professional	931	0.47	438	5.26	4,366
Industrial	1,575	0.48	756	5.00	3,780
Subtotal WRSP	**3,726**		**1,279**		**8,364**
Remainder Area					
Commercial	1,683	0.07	118	2.56	302
Business Professional	2,352	0.47	1,105	5.26	5,812
Industrial	0	0.48	0	5.00	0
Subtotal Remainder Area	**4,035**		**1,223**		**6,114**
Total	***7,761***		***2,502***		***14,478***

NOTES:

1 It should be noted that the indirect and induced long term employment, and the direct, indirect, and induced construction employment estimates represent a maximum employment effect in an open economy. Not all of this employment may be captured by the Sacramento metropolitan economy.

2. The Indirect Factor is the Type I Employment Multiplier for Retail (Commercial Uses), Business and Professional (Business Professional Uses), and Electronic Components and Equipment (Industrial), less direct employment. The Induced Factor is the Type II Employment Multiplier for Retail (Commercial Uses), Business and Professional (Business Professional Uses), and Electronic Components and Equipment (Industrial), less direct and indirect employment.

SOURCE: EIP Associates, 2002; Association of Bay Area Governments, Center for Analysis and Information Services, 1987 Input-Output Model and Economic Multipliers for the San Francisco Bay Area Region, Table 6, page 48.

The multiplier effect also calculates *induced* employment. Induced employment follows the economic effect of employment beyond the expenditures of the employees within the proposed project area to include jobs created by the stream of goods and services necessary to support businesses within the proposed project. For example, when a manufacturer buys products or sells products, the employment associated with those inputs or outputs are considered *induced* employment.

As a simple example, when an employee from the project goes out to lunch, the person who serves the project employee lunch holds a job that was *indirectly* caused by the proposed project. When the server then goes out and spends money in the economy, the jobs generated by this third-tier effect are considered *induced* employment.

The multiplier effect also considers the secondary effect of employee expenditures. Thus, it includes the economic effect of the dollars spent by those employees who support the employees of the project.

Increased future employment generated by resident and employee spending ultimately results in physical development of space to accommodate those employees. It is the characteristics of this physical space and its specific location that will determine the type and magnitude of environmental impacts of

this additional economic activity. Although the economic effect can be predicted, the actual environmental implications of this type of economic growth are too speculative to predict or evaluate since they can be spread throughout the Sacramento metropolitan region and beyond. Accordingly, no further assessment of environmental impacts is contained herein except as discussed in "Impacts of Induced Growth," which follows.

The "Multiplier" Effect of the SOI Amendment Area

In total, the SOI Amendment Area would accommodate land uses that would employ a total of 7,761 persons. Through the multiplier effect, an additional 2,502 indirect jobs would be created in the Roseville/South Placer area, and up to an additional 14,478 jobs would be created in the Sacramento metropolitan region and beyond. These 14,478 jobs would require approximately 665 acres of developed non-residential land uses (conservatively assuming 500 square feet per employee and a floor area ratio of approximately 0.25:1).

The WRSP proposes land uses that would employ a total of 3,726 persons.[457] Through the multiplier effect, an additional 1,279 indirect jobs would be created in the Roseville/South Placer area, and up to an additional 8,364 jobs would be created in the Sacramento metropolitan region and beyond.

The Remainder Area land uses would employ a total of 4,035 persons.[458] Through the multiplier effect, an additional 1,223 indirect jobs would be created in the Roseville/South Placer area, and up to an additional 6,114 jobs would be created in the Sacramento metropolitan region and beyond.

The employment predicted through the multiplier effect is not all new to the region. Much of these employment effects would be absorbed into underutilized portions of the local economy. To the extent that goods and services are not available in the local and/or regional economy, portions of these economic effects would extend outside the local and regional economy. Thus, the magnitude of this impact is speculative and cannot be reasonably determined at this time. Nonetheless, examination of the multiplier effect highlights the nature of the economic stimulus that development, especially non-residential development, has within a local economy and the profound effects that economic growth can have on local development and growth patterns with concomitant physical environmental effects.

[457] Please see Chapter 4.2 of this Draft EIR.

[458] Assuming that 49.5 acres of Business Professional (BP) uses were developed. The planning assumptions for the MOU Remainder Area include BP or Industrial. If only industrial uses were developed on the 49.5 acres, 1,633 fewer jobs would be created. The actual uses are likely to be a mix of BI and Industrial.

5.4.3 Impacts of Induced Growth

The growth induced directly and indirectly by the WRSP would contribute to a number of environmental impacts in the City, as well as the greater Sacramento/Placer County area, including: traffic congestion; air quality deterioration; loss of agricultural land and open space; loss of habitat and wildlife; impacts on utilities and services, such as fire and police protection, water, recycled water, wastewater, solid waste, energy, and natural gas; and increased demand for housing.

Specifically, an increase in population-growth-induced housing demand in the greater Sacramento region could cause significant environmental effects as new residential development will require governmental services, such as schools, libraries, and parks.

Indirect and induced employment and population growth would further contribute to the loss of open space because it would encourage conversion to urban uses for housing and infrastructure.

5.5 CUMULATIVE IMPACTS

5.5.1 Introduction

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed project. This assessment involves examining project-related effects on the environment in the context of similar effects that have been caused by past or existing projects and that would be caused by reasonably foreseeable future projects. Even when project-related impacts are individually minor, the cumulative effects of these impacts, in combination with the impacts of other projects, could be significant under CEQA and must be addressed (CEQA Guidelines, Sections 15130 and 15355(b)).

As described in Section 15065(c) of the CEQA Guidelines, an EIR must discuss the "cumulative impacts" of a project when its incremental effect will be cumulatively considerable. This means that the incremental effects of the individual project would be considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Section 15355 of the CEQA Guidelines defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." This section states further that "[I]individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is [defined as] the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts

can result from individually minor but collectively significant projects taking place over a period of time."

The fact that a cumulative impact is significant on the whole does not necessarily mean that the project-related contribution to that impact is significant as well. Instead, under CEQA, a project-related contribution to a significant cumulative impact is only significant if the contribution is cumulatively considerable. The significance conclusion of the project's contribution to a cumulative impact considers whether the project implements or funds its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, it need not consider the effect significant, but shall briefly describe the basis for its conclusion. However, Section 15130(a) of the CEQA Guidelines requires that EIRs discuss the cumulative impacts of a project when the project's incremental effect is cumulatively considerable.

Section 15130(b) of the CEQA Guidelines also indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses; however, it should reflect the severity of the impacts and its likelihood of occurrence, and it should be focused, practical, and reasonable.

To be adequate, a discussion of cumulative effects must include the following elements:

- Either (a) a list of past, present and probable future projects, including, if necessary, those outside the agency's control, or (b) a summary of projections contained in an adopted general plan or related planning document, or in a prior adopted or certified environmental document, which described or evaluated regional or area-wide conditions contributing to the cumulative impact, provided that such documents are referenced and made available for public inspection at a specified location;
- A summary of the individual projects' expected environmental effects; and
- A reasonable analysis of all of the relevant projects' cumulative impacts, with an examination of reasonable, feasible options for mitigating or avoiding the project's contribution to such effects (section 15130[b]).

5.5.2 Development Considered in Cumulative Impact Analysis

This cumulative analysis considers growth in the region, as represented by adopted planning documents and proposals currently under consideration. Because the Remainder Area is unlikely to develop without the WRSP, no separate analysis is provided for cumulative impacts of the Remainder Area. Instead, the Remainder Area is considered as part of the full SOI Amendment.

Planned Development

Within the City, the cumulative condition includes existing development and buildout of the existing General Plan through the year 2020, including full buildout of the Southeast Roseville Specific Plan, the Northwest Roseville Specific Plan, the Northeast Roseville Specific Plan, the North Central Roseville Specific Plan, the North Roseville Specific Plan (Phases 1 through 3), the Del Webb Specific Plan, Highland Reserve North Specific Plan, and the Stoneridge Specific Plan. Also included are buildout of the City's Infill Area and North Industrial Area. Land use assumptions within the City are shown in Table 5-2.

Table 5-2 City of Roseville Buildout Development Forecasts by Plan Area

	Dwelling Units		1,000 Sq Ft (KSF)		
Planning Area	SF	MF	Retail	Office	Industrial
Del Webb SP	3,223	100	89.3	0.0	0.0
Highland Reserve North SP	1,188	688	1,733.3	0.0	0.0
Infill Area	12,582	5,926	5,017.3	2,871.6	12,491.4
North Central Roseville SP	2,171	2,263	5,088.8	2,761.6	797.2
Northeast Roseville SP	616	795	2,603.4	4,795.1	0.0
North Industrial Area	351	0	0.0	0.0	6,389.4
North Roseville SP	4,293	845	500.1	184.0	0.0
Northwest Roseville SP	6,691	2,391	1,122.9	537.1	97.1
Southeast Roseville SP	1,804	1,671	792.9	1,131.7	0.0
Stoneridge SP	2,253	629	386.5	59.3	0.0
Total	***35,172***	***15,308***	***17,334.5***	***12,340.3***	***19,775.1***

SOURCE: DKS Associates 2003

The cumulative context for many issue areas extends beyond the City boundaries. Where cumulative impacts extend beyond the City, the cumulative analysis is based on assumptions for growth in Rocklin, Lincoln, unincorporated Placer County, and a portion of Sutter County through the year 2020, which is the horizon year for the City's traffic model. Development assumptions for these areas are shown in Table 5-3. The locations of the primary development projects in Placer County are shown in Figure 5-1.

Table 5-3 Roseville Model Assumptions: 2020 Land Uses In Other Areas

Region	Single Family DU	Multi-Family DU	Age Restricted DU	Total Residential DU	Commercial KSF	Office KSF	Industrial KSF
Rocklin	15,872	5,742	1,172	22,786	4,810	2,792	3,323
Lincoln	11,225	3,073	6,919	21,217	2,262	1,539	7,163
Placer Vineyards	7,006	651	0	7,657	920	288	0
Sunset Industrial	5	0	0	5	495	822	5,046
Granite Bay	8,974	888	0	9,862	1,043	253	103
Sunset Industrial	182	80	0	262	3	1	0
Lincoln/Sunset	436	56	0	492	1	94	335
Remainder Area	5,916	1,487	0	7,203	589	647	0

SOURCE: DKS Associates 2003

Proposed and Anticipated Development

Additional development prior to or beyond 2020 could occur from various potential development projects in communities adjacent to the SOI Amendment Area and are considered in the cumulative impact analysis. One of these projects, the South Sutter County Specific Plan, has been approved for development but would take well beyond 2020 to fully build out. Other projects have been proposed, but not formally approved. These projects include Placer Vineyards, Placer Ranch, Roseville Energy Park, and De la Salle/AKT University. An environmental document is currently in preparation for the Placer Vineyards project, but no environmental review has begun on the remaining projects.

The following project is approved, but would not be fully built out until after 2020.

- **South Sutter Specific Plan Area**—Sutter County has recently approved the 3,500-acre South Sutter Specific Plan, an industrial area which could eventually have an estimated 55,000 employees.[459] A portion of the South Sutter Specific Plan was assumed in the traffic, air quality, and noise analyses presented in Chapter 4 of this document.

The following projects have been proposed, but have not been approved.

- **Placer Vineyards**—An environmental document is currently being prepared on this proposed development, which would contain 14,132 dwelling units and about 6.5 million square feet of retail, office, and industrial uses. The traffic, air, and noise analyses assumed buildout of Area 1 of Placer Vineyards, with about 7,657 dwelling units and about 3.6 million square feet of retail, office, and industrial uses.
- **Placer Ranch**—This mixed-use development project is being proposed for the western portion of the Sunset Industrial Area in unincorporated Placer County north of the City of Roseville. (An initial application was submitted to the County, but a formal application has not been received.[460]) Placer Ranch is currently proposed to contain a 262-acre college campus, plus 3,095 residential dwelling units and about 1,046 acres of retail, office, and industrial uses. Under cumulative (2020) conditions, a substantial amount of new employment was assumed in the eastern portion of the Sunset Industrial Area (within a mile of State Route 65 in the area that contains the Placer Ranch site), but no residential units were anticipated originally and a very limited amount of new development was assumed.
- **Roseville Energy Park**—Roseville Electric is in the early stages of planning a new Energy Park to meet the community need for service reliability and cost stability. The park would include a 150 megawatt (MW) Natural Gas Generator, 1 MW photovoltaic (solar) generation system, and a

[459] The approvals for this project were recently invalidated by the Superior Court, but Sutter County has not indicated whether they will appeal the decision or redesign the project. Because the South Sutter Specific Plan could still be implemented if the County were to successfully appeal, and the nature of a redesigned project, if any, is unknown, this analysis assumes that the South Sutter Specific Plan approved by the County will be implemented.

Community Energy Center. Pending final project definition and community input and environmental analysis, the Energy Park will most likely be located on a 40-acre site adjacent to the PGWWTP, approximately one mile northwest of the City limits.

The main feature of the Energy Park will be a natural gas-fired generation facility used to generate more than half of the City's electricity needs. The facility would consist of two combustion turbine generators exhausting into two separate heat recovery steam generators, which generate steam for one common steam turbine generator. This system is designed to produce as much electricity as possible with the least amount of natural gas. The other features of the Energy Park include the solar installation, which will generate renewable energy from the sun's rays, and the Community Energy Center.

- **De la Salle/AKT University (West Placer County)**—An application has been filed for this project with preliminary information regarding the developer, types of land uses, potential number of units, and amount of square-footage. Its proposed concept includes a Catholic University and a "university village," consisting of residential and commercial uses. The site for this potential development is just west of the WRSP and the SOI Amendment Area.

One other potential large development has also been discussed in an area surrounding the SOI Amendment Area, but no formal application has been filed.

- **Northwest Territories**—This area is located in unincorporated Sacramento County between the North Natomas Community Plan Area and the Sutter County line. Development of some of this land has been discussed as part of the Sacramento City-County "Joint Vision for Natomas." No land uses have been proposed; therefore, the amount and type of development is unknown.

For the traffic analysis, two additional potential projects are evaluated – an expansion of Kaiser Hospital within the City of Roseville and Placer Parkway (see Transportation and Circulation, below, for more description).

5.5.3 Cumulative Impact Assessment

The geographic scope of the cumulative impact analysis varies depending upon the specific environmental issue area being analyzed. For example, the scope of the cumulative impact analysis for aesthetics includes the area that comprises the viewshed of and from the project site, whereas the scope of the cumulative impact analysis for hydrology and water quality includes the Pleasant Grove Creek and Curry Creek watersheds in the Sacramento Valley. In addition to describing the geographic scope of analysis in each issue area, the cumulative context within the designated geographic area is described, which relates to the amount and type of growth that is anticipated to occur within the geographic area.

[460] Fred Yeager, Planning Director, Placer County, personal communication, June 2003.

For each technical issue area, the cumulative analysis is provided separately for the SOI Amendment Area (which includes both the WRSP Area and the Remainder Area) and the WRSP Area. Under the first scenario, the "project" is full development of the SOI Amendment Area and the cumulative context includes those projects and growth assumptions set forth in Section 5.2.2 of this document, excluding the Remainder Area since it is part of the project. Under the second scenario, the "project" is development of the WRSP Area alone and the cumulative context similarly includes those projects and growth assumptions set forth in Section 5.2.2 of this document, but it includes the Remainder Area since it is not part of the project in this scenario.

In summary, (yet described in detail in the following sections), significant and unavoidable cumulative impacts would occur in the following areas: loss of agricultural land; increase in traffic volumes on City and regional roadways and State Highways; degradation of water quality; loss of biological resources; construction emissions; operation emissions; demand for water supply; demand for water treatment; demand for wastewater treatment; on-site and off-site traffic noise; increased demand for electricity; increase in solid waste; loss of historic and cultural resources; and change in visual character. It should be noted that for each of these subject areas, the potential for significant cumulative impacts already exists, regardless of whether or not the WSRP or SOI Amendment is approved. Nevertheless, the WRSP and SOI Amendment would contribute to conditions that create the cumulative impacts described below.

Land Use and Agricultural Resources

The cumulative context for agricultural land conversion would be the northern Central Valley, particularly western Placer County, northern Sacramento County, and south Sutter County, which contain a wide range of agricultural uses, from grazing to row crops to orchards.

For land use compatibility, the immediate vicinity of the SOI Amendment Area is considered the cumulative context because any incompatibility would occur primarily at the interface of different land uses.

Compatibility with External Land Uses

SOI Amendment Area

Once the full SOI Amendment Area is developed, it would be adjacent to existing City residential areas to the east of the WRSP and rural residential areas to the south, across Baseline Road. Agricultural land would form the western and northern borders. However, as discussed above, several projects are proposed in the vicinity of the project site. Placer Ranch, north of the SOI Amendment Area, designates medium density residential uses along its southern border. Both the WRSP and Remainder Area would

have a minimum 50-foot buffer along the northern edge (MM 4.1-2 and MM 4.1-3), and, in some portions, wider open space. Similarly, both the WRSP and the Remainder Area provide for a ¼ mile open space buffer along their western edges, which should provide enough separation to minimize potential conflicts with the De la Salle/AKT University project, if it is developed. Placer Vineyards to the south of the SOI Amendment Area proposes a variety of uses along its northwestern edge, including transitional housing, office, commercial, and open space. These areas would contain fairly typical urban uses. Development in the Remainder Area would be separated from Placer Vineyards by Baseline Road, which is planned to be widened to six lanes. For these reasons, the SOI Amendment Area would be compatible with surrounding development.

The SOI Amendment Area would surround the Roseville Energy Park on three sides, with the WRSP area to the west and east and the Remainder Area to the north. The Remainder Area is assumed to include residential uses, but the configuration of the area is undetermined at this time, and no designated buffer is provided in the Remainder Area for the energy park. However, any residential uses north of the energy park would be separated from it by Blue Oaks Boulevard (approximately 170 feet of right of way) and approximately 250 feet of City owned property for a total of approximately 420 feet. This separation would be adequate to protect residents from unacceptable noise levels. Landscaping along Blue Oaks Boulevard would also reduce potential incompatibilities.

For the above reasons, the SOI Amendment would be compatible with future surrounding development, and the SOI Amendment's contribution would not be cumulatively considerable and is considered **less than significant**.

West Roseville Specific Plan

As discussed in Section 4.1, the WRSP area is surrounded by existing urban development to the east and grazing land to the north, south, and west. Compatibility with these existing uses is discussed in Impact 4.1-3 of this document.

Although the land surrounding the WRSP on three sides is currently designated agriculture, there are proposed and potential development projects that would convert these areas into urban uses. The Remainder Area, which is immediately adjacent to the WRSP area, is assumed to develop if the WRSP is approved and developed. The Remainder Area would contain residential, commercial, and public uses similar to those proposed for the WRSP. MM 4.1-3 would ensure that development of the Remainder Area is compatible with the WRSP.

Two potential projects could occur in proximity to the WRSP. A preliminary plan has been developed for Placer Ranch, immediately north of the Fiddyment Ranch portion of the WRSP. The current land use plan for Placer Ranch shows medium density residential uses along its southern border. The northeastern portion of the WRSP, which abuts Placer Ranch, is designated low density residential; therefore, the two plans as proposed would be compatible since they proposed similar land uses in this area. The SOI Amendment Area would have a 50-foot buffer along its northeastern edge and an open space preserve along its northwestern edge, which would provide some separation between the County and City. The City has expressed concerns to the County regarding separation between County and City development, and proposed a ¼ mile buffer along the southern border of Placer Ranch. If the County incorporates such a buffer into Placer Ranch, compatibility between the City and County developments would be enhanced.

As previously discussed, preliminary information regarding the location, density, and configuration of the possible De la Salle/AKT University project to the west of the WRSP has been provided in an application recently submitted to the County. With respect to land use compatibility, the WRSP provides a ¼ mile open space corridor along its western edge, which should provide an adequate buffer from activities that would occur in a University community. However, Pleasant Grove Boulevard and Blue Oaks Boulevard may ultimately be extended which could result in increased traffic, noise, and air pollutants emissions.

The City of Roseville proposes to develop a 150 MW energy facility north of the PGWWTP. The WRSP was planned in such a manner as to minimize the potential incompatibility of uses that a proposed power plant could present to the community. As shown in Figure 5-1, the Roseville Energy Park is proposed on City-owned land north of the PGWWTP. The proposed energy facility site is bordered by proposed light-industrial uses to the west and southwest and a proposed regional park to the east. The proximity of these uses to the proposed Roseville Energy Park would not result in any land use incompatibilities because they do not contain sensitive receptors, like homes, that could be inconvenienced by noise or visual intrusions. The closest residence would be over 1,000 feet from the energy park and is expected to maintain an exterior noise level of 60 dBA or better, consistent with City Standards.

The proposed WRSP designates land within 1,000 feet of the proposed energy park site as commercial, light-industrial, public/quasi-public, park, and open space. The closest sensitive receptors, including residential areas, would be located over 1,000 feet from the proposed facility. A portion of the proposed high school site would be located within the 1,000 foot buffer area. The California Department of Education School Facilities Planning Division establishes specific guidelines for the acquisition of land

and development of school facilities. According to guidelines included in the Resources for School Facilities Planning, any part of a school site must be located a minimum of 100 feet from the edge of an easement for a 50-133 kV line; 150 feet from the edge of an easement for a 220-230 kV line; or 350 feet from the edge of an easement for a 500-550 kV line.[461] A 60 kV transmission line is proposed along the western edge of the proposed Roseville Energy Park and PGWWTP. A 60 kV transmission line is also proposed to make a loop through the WRSP and Remainder Area as shown in Figure 4.11-4 in Section 4.11, Utilities. All of these transmission lines are proposed to be over 1,000 feet from the high school site. The location of the high school site would meet the requirements set by the California Department of Education regarding proximity to high voltage lines.

A high pressure natural gas line is planned to provide gas to the Roseville Energy Park several alignments are being considered which could include an alignment within a quarter mile of the proposed high school. It is expected that if the Roseville Energy Park is approved gas line siting would be consistent with the Department of Education's requirements regarding proximity to gas lines.

For the above reasons, the WRSP would be compatible with future surrounding development, and the WRSP's contribution would not be cumulatively considerable and is considered to be **less than significant**.

Agricultural Land Conversion

SOI Amendment Area/West Roseville Specific Plan

Within western Placer County, a majority of agricultural land has been identified as Farmland of Local Importance and Grazing land. The SOI Amendment Area (which includes the WRSP area) contains land designated as Farmland of Local Importance and Prime Farmland. The SOI Amendment Area would likely develop a total of approximately 4,064 acres of land designated as Farmland of Local Importance with residential, commercial, industrial, light industrial, and other public uses. A total of approximately 23 acres of Prime Farmland would be developed with residences and a community garden as part of the WRSP. The loss of Prime Farmland is occurring throughout California, including in south Placer County. Other projects in the cumulative context would also result in the loss of agricultural land. Because so much farmland is being lost to development throughout south Placer County and the region, the loss of Prime Farmland and agricultural productivity would be cumulatively considerable and would also result in a **significant and unavoidable impact**.

[461] Resources for School Facilities Planning, California Department of Education, School Facilities Planning Division, 2000, page 6.

Population, Employment and Housing

Jobs/Housing Ratio

The cumulative context for jobs/housing balance is population and employment growth in the City of Roseville. A City resolution (Resolution 83-118) calls for 80 percent of workers residing in the City of Roseville to live within eight miles of employment opportunities and 60 percent of workers to live within six miles of employment opportunities.

SOI Amendment Area

As stated in Section 4.2, development in the SOI Amendment Area would provide 15,833 housing units, which are expected to accommodate a population of approximately 39,540. In addition, 19,950 employees and 7,761 jobs are anticipated to be generated by the SOI Amendment Area. Construction of the project would also provide additional jobs, although only during short-term construction activities. These increases would be in addition to the population and employment generated by other cumulative development in the City. By 2020, there will be approximately 50,480 dwelling units in Roseville.[462] Using a ratio of 1.26 employees per household, 63,605 employees would reside in the City. In 2020, there will be approximately 98,900 jobs in the City of Roseville.[463] Because the City is approximately 8.3 miles wide, if there are enough jobs within the City to accommodate 80 percent of the City's employed population, the City's jobs/housing standard would be satisfied (see page 4.2-15). With 102,411 (98,900 plus 3,511) total jobs and 74,227 employees in the City of Roseville by 2020 assuming development of the WRSP area, 100 percent of employees in the City of Roseville could be within eight miles of a job, and more than 60 percent within six miles of a job. There are also planned employment centers outside of the City, such as the Sunset Industrial Area north of the WRSP, but within eight miles of the project site.

As discussed above, the change in the jobs/housing balance would depend on the type of development approved and the timing of residential versus non-residential development. Short-term imbalances could occur, particularly if commercial and industrial uses do not develop as quickly as residential uses, which may be likely.

Within Placer County and the City combined, the jobs/housing ratio would change from 0.93 jobs for every employee (without the SOI Amendment) to 1.07 jobs for each employee with development of the SOI Amendment Area. This shift would mean that the number of employees exported without the SOI Amendment would be proportionate to the number imported with the SOI Amendment. Further, 80

[462] DKS Associates 2002.
[463] DKS Associates, 2002; based on the conservative assumption that each employee requires 500 square feet of space.

percent of the City's workers would be housed within an eight-mile commute distance and 60 percent within a six-mile commute distance. Therefore, the SOI Amendment's contribution would not be cumulatively considerable and impacts on the jobs/housing balance would be considered **less than significant**.

West Roseville Specific Plan

As discussed in Section 4.2, Population, Employment and Housing, development in the WRSP would provide 8,430 housing units that are expected to accommodate a population of approximately 20,809. In addition, 10,622 employees and 3,727 jobs are anticipated to be generated by the WRSP. Construction of the WRSP would provide additional jobs, although only during short-term construction activities. These increases would be in addition to the population and employment generated by other cumulative development in the City. By 2020, there will be approximately 50,480 dwelling units in Roseville.[464] Using a ratio of 1.26 employees per household, 63,605 employees would reside in the City. In 2020, there will be approximately 98,900 jobs in the City of Roseville.[465] Because the City is approximately 8.3 miles wide, if there are enough jobs within the City to accommodate 80 percent of the City's employed population, the City's jobs/housing standard would be satisfied (see page 4.2-15). With 102,411 (98,900 plus 3,511) total jobs and 74,227 employees in the City of Roseville by 2020 assuming development of the WRSP area, 100 percent of employees in the City of Roseville could be within eight miles of a job, and more than 60 percent within six miles of a job. There are also planned employment centers outside of the City, such as the Sunset Industrial Area north of the WRSP, but within eight miles of the project site.

The jobs/housing ratio for the County and City combined would change from 0.93 without the WRSP to 1.10 with the WRSP, which would not be a substantial change. Over time, the jobs/housing balance would depend on the type of developments approved and the timing of residential versus non-residential development. For example, both the proposed Placer Vineyards project and Placer Ranch provide for both residential and employment-generating uses, including office and industrial. Short-term imbalances could occur, particularly if commercial and industrial uses do not develop as quickly as residential uses, which may be likely.

Because 80 percent of employed City residents are projected to live within eight miles of a job and 60 percent within six miles of a job, the WRSP's contribution would not be cumulatively considerable and impacts on the jobs/housing balance would be considered **less than significant**.

[464] DKS Associates 2002.
[465] DKS Associates, 2002; based on the conservative assumption that each employee requires 500 square feet of space.

Affordable Housing

The cumulative context for affordable housing is residential development in South Placer County, including development of the proposed project site area.

SOI Amendment Area

Buildout of the SOI Amendment Area would increase the City's housing stock by approximately 15,833 units. As measured against the City's goal of 10 percent affordable housing, approximately 5,048 homes in the City, including development of the SOI Amendment Area, would need to be dedicated as affordable housing. The SOI Amendment Area would need to provide approximately 1,583 units (843 units in the WRSP and 740 in the Remainder Area). As discussed below, 10 percent of units in the WRSP will be designated affordable. The mix of units in the Remainder Area has not been determined. Implementation of MM 4.2-2 requires that the Remainder Area also meet the City's 10 percent goal. Therefore, the SOI Amendment Area's contribution to cumulative demand for affordable housing in the City would not be cumulatively considerable and would be less than significant.

If all South Placer development provides only ten percent of units as affordable, the County has indicated that the region may not be able to meet the demand for affordable housing. However, the County does not currently have an established affordable housing plan or specific policies that would guide future residential development with respect to affordable housing. Nonetheless, the cumulative impact would be considered significant and unavoidable.

West Roseville Specific Plan

Buildout of the WRSP would increase the population by approximately 20,809 residents in approximately 8,430 units. In 2020 with approval of the WRSP, the City's population would reach 127,714,[466] resulting in approximately 50,480 residences in the City[467] (assuming 2.53 residents per dwelling unit). As measured against the City's goal of 10 percent affordable housing, a total of approximately 5,048 homes in the City, including development of the WRSP area, would be required to be dedicated as low-income housing. As discussed in Impact 4.2-2, the WRSP would meet the City's policy by providing ten percent of its housing at affordable levels. Because the WRSP would meet the City's goal, its contribution to the demand for affordable housing would not be cumulatively considerable, and would be **less than significant**. However, as discussed above, if all South Placer

[466] MuniFinancial, *2020 Development Projections for the City of Roseville*, February 7, 2001; MuniFinancial, *2020 Citywide Development Projections with Proposed West Roseville Memorandum of Understanding Area*, November 9, 2001.
[467] DKS Associates, 2002.

County development provides only 10 percent of units as affordable, the region may not be able to meet the demand for affordable housing, which would result in a significant and unavoidable cumulative impact. Therefore, while the WRSP's contribution to affordable housing would be less than significant, the cumulative impact would be **significant** with respect to the availability of affordable housing in the region.

Transportation and Circulation

This cumulative traffic analysis considers several scenarios including (1) development that is proposed, but not approved; (2) development that is approved, and not yet constructed, but will be constructed and occupied by 2020; and (3) development that is approved but not expected to be developed until after 2020. The daily traffic volumes within the City under the 2020 Plus SOI Amendment, the 2020 Plus WRSP and 2020 with no project scenarios are shown in Figure 5-2 (Daily Traffic Volumes under Cumulative with Kaiser Expansion Plus SOI Amendment Area) and Figure 5-3 (Daily Traffic Volumes Under Cumulative With Kaiser Expansion Plus West Roseville Specific Plan) and Figure 5-4 (Daily Traffic Volumes Under Cumulative With Kaiser Expansion No Project Conditions) respectively.

This section address the cumulative transportation impacts of the WRSP and the SOI Amendment under the following scenarios.

- 2020 Conditions Plus Kaiser Medical Center Expansion
- No Project with Kaiser Medical Center Expansion
  - Plus buildout of WRSP
  - Plus buildout of the full SOI Amendment Area
- 2020 Conditions Plus Construction of Placer Parkway
  - No Project without Placer Parkway
  - Buildout of the full SOI Amendment Area with Placer Parkway
- Cumulative conditions that could result from potential development that has not been approved, or that would occur after 2020, in areas outside of the City of Roseville but near the WRSP, including later phases of the Placer Vineyards, Placer Ranch, and South Sutter Specific Plans, as well as others.

The methods of analysis for 2020 conditions with or without the Kaiser project or Placer Parkway are described in Section 4.3, Transportation and Circulation. Development assumptions for the year 2020 are shown in Tables 5-2 and 5-3. These assumptions provide the baseline to which the Kaiser Project and Placer Parkway, as well as the WRSP and SOI Amendment, are added.

Cumulative Conditions With Kaiser Medical Center

The City has received an application for a proposed expansion of the Kaiser Medical Center located on the northwest corner of Douglas and Eureka Boulevard. While expansion of that center was assumed in the development forecast used to evaluate the 2020 CIP (which is the basis for the 2020 No Project Scenario), a recent larger proposal for the expansion indicates that it would generate more trips than assumed in the CIP analysis. This section discusses traffic-related impacts on the City roadway system under a cumulative scenario that assumes expansion of the Kaiser Medical Center with and without the WRSP and SOI Amendment Area.

City of Roseville Roadways

The City's travel demand model was used to estimate the change in daily and p.m. peak hour traffic volumes on roadways throughout the City of Roseville and in surrounding communities due to development of the WRSP or SOI Amendment Area under 2020 conditions.

SOI Amendment Area

An intersection level of service analysis was conducted for this scenario. This analysis includes all signalized intersections within the City of Roseville assumed under 2020 Plus Kaiser Expansion No Project scenario plus signals that would likely be warranted due to development of the full SOI Amendment. A planning-level signal warrant analysis indicates the following 17 intersections would require signalization under the 2020 Plus Kaiser Expansion Plus SOI Amendment scenario:

- Within SOI Amendment
  - Fiddyment Road and Hayden Parkway South
  - Fiddyment Road and Hayden Parkway North
  - Fiddyment Road and SOI East/West Street
  - Fiddyment Road and Westhills Drive
  - Blue Oaks Boulevard and Hayden Parkway
  - Blue Oaks Boulevard and West Side Drive
  - Blue Oaks Boulevard and Phillip Road
  - Blue Oaks Boulevard and "N/S" Street
  - Pleasant Grove Boulevard and Bob Doyle Drive
  - Pleasant Grove Boulevard and Village Green Drive
  - Pleasant Grove Boulevard and Collector C
  - Pleasant Grove Boulevard and West Side Drive

Figure 5-2 Daily Traffic Volumes Under Cumulative with Kaiser Expansion Plus SOI Amendment Area

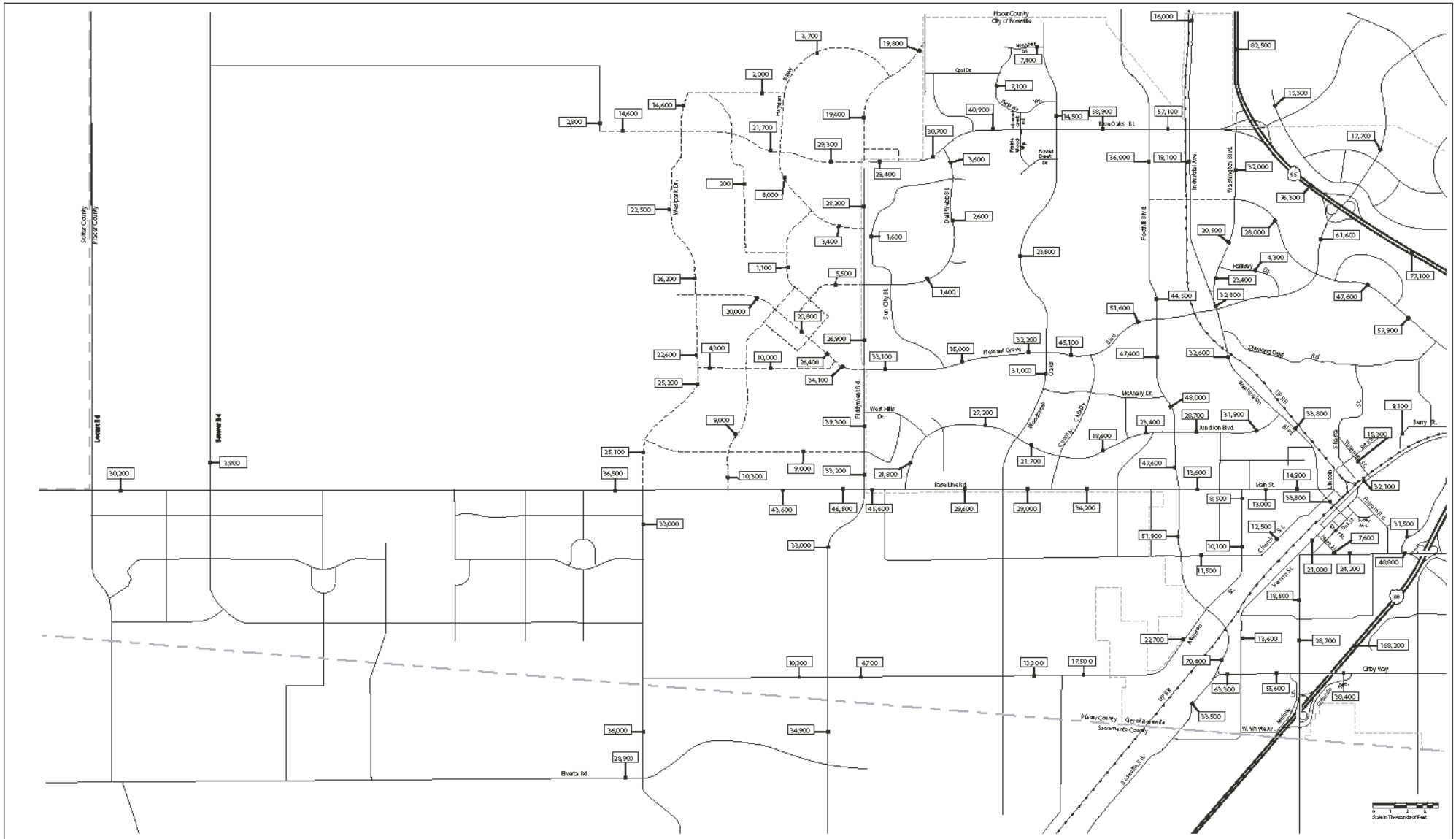


FIGURE 5-2
Daily Traffic Volumes under Kaiser Expansion Plus SOI Amendment Area

10659-00

Source: DKS Associates

City of Roseville

EIP ASSOCIATES

Figure 5-3 **Daily Traffic Volumes Under Cumulative With Kaiser Expansion Plus West Roseville Specific Plan**

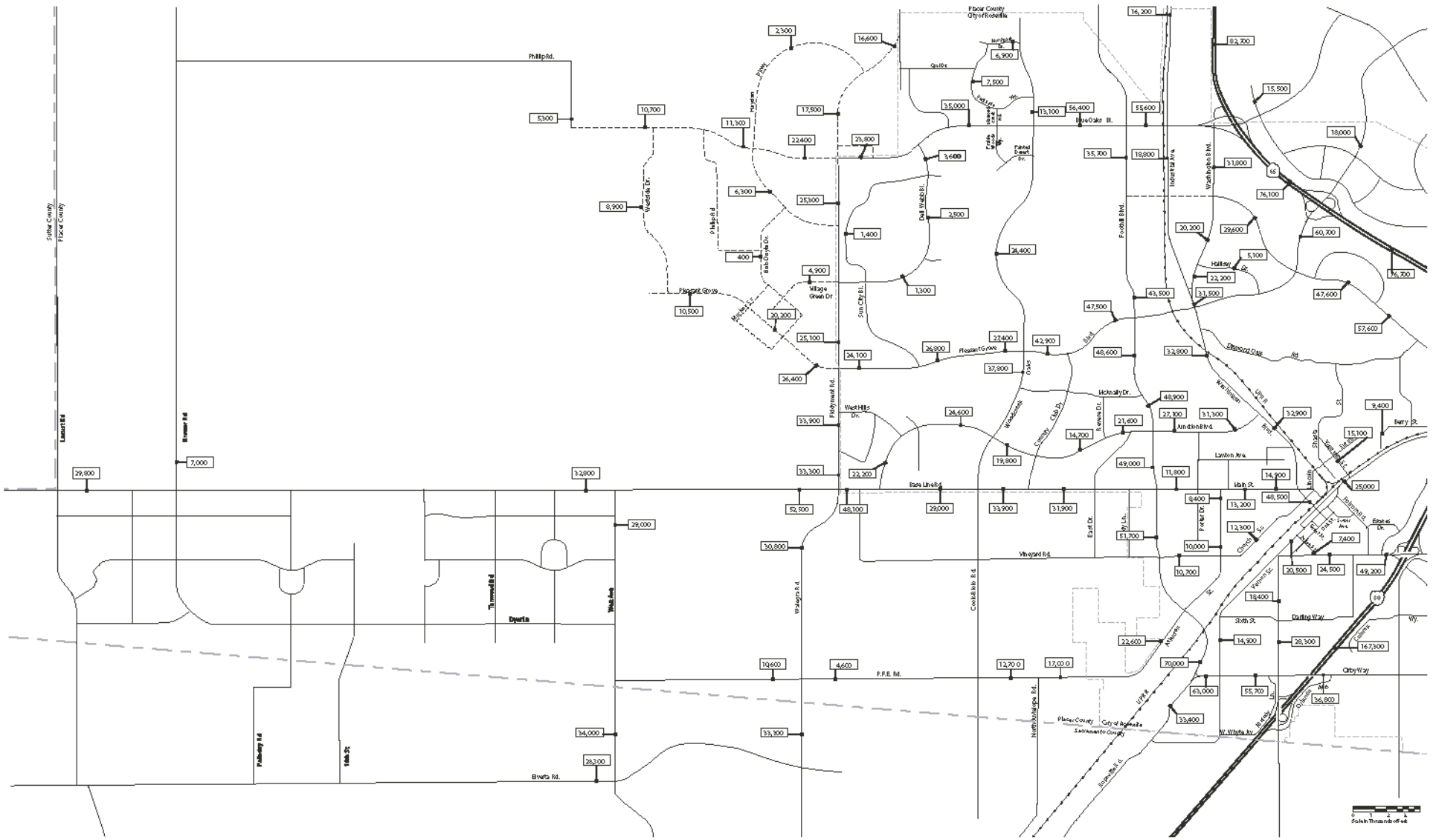


FIGURE 5-3

Daily Traffic Volumes Under Cumulative With Kaiser Expansion Plus West Roseville Specific Plan

10659-00

Source: DKS Associates

City of Roseville

EIP ASSOCIATES

Figure 5-4 **Daily Traffic Volumes Under Cumulative With Kaiser Expansion No Project Conditions**

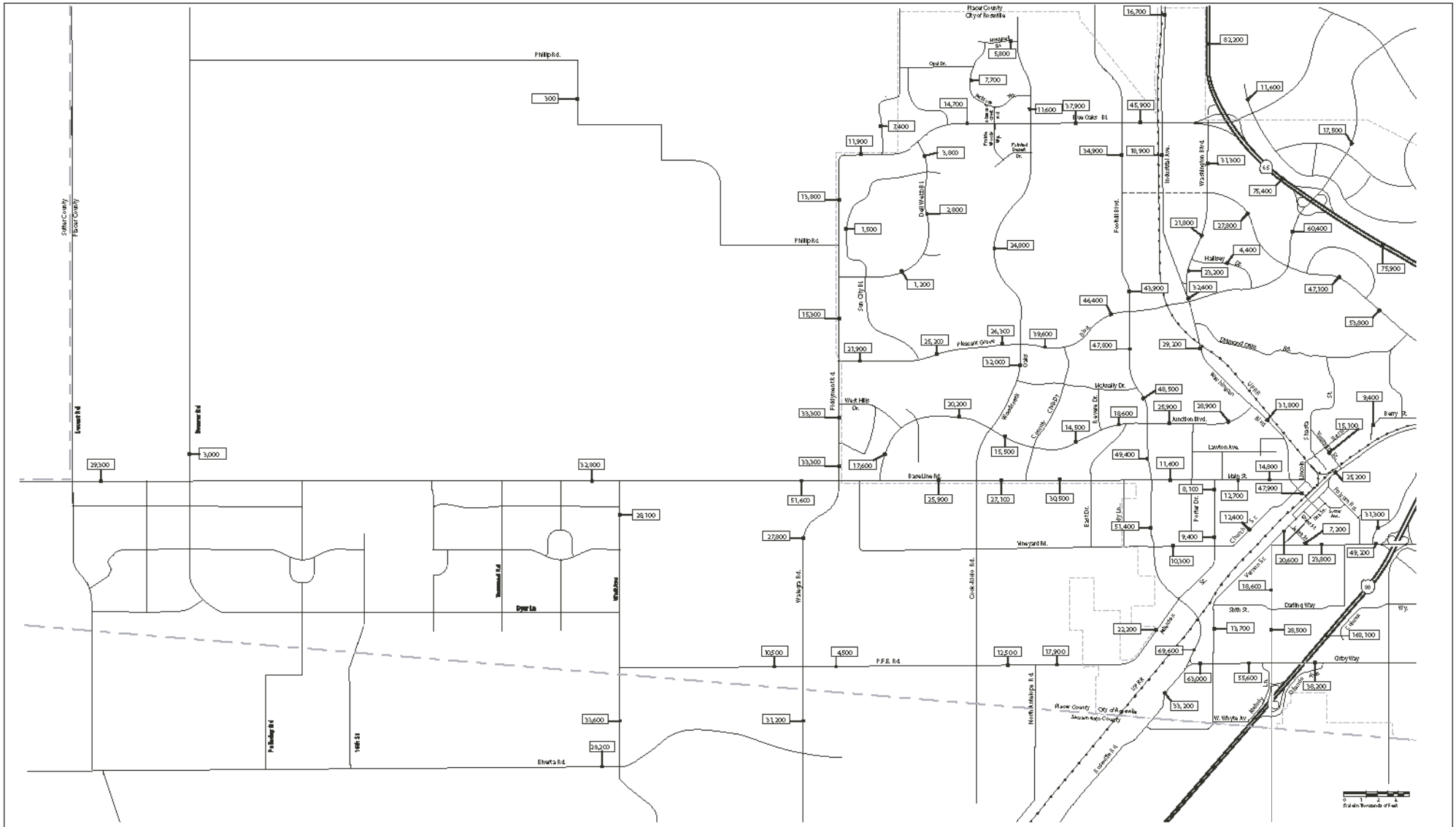


FIGURE 5-4
Daily Traffic Volumes Under Kaiser Expansion No Project Conditions

10659-00

Source: DKS Associates

City of Roseville

EIP ASSOCIATES

- › Baseline Road and Watt Avenue
- › Baseline Road and Market Street
- › Market Street and Collector C
- › Market Street and SOI E/W Street
- › North/South arterial and Collector C

■ Outside SOI Amendment

- › None

It was assumed that with full development of the SOI Amendment Area, Fiddyment Road from Pleasant Grove Boulevard to Baseline Road and the pre-existing Placer County signalized intersection of Watt Avenue and Baseline Road would be annexed by the City of Roseville. The level of service analysis indicates that Fiddyment Road from north of Pleasant Grove Boulevard to Baseline Road would require widening to six lanes with development of the SOI Amendment Area. This widening was reflected in the travel demand forecasts for the 2020 Kaiser Expansion Plus SOI Amendment scenario.

Table K-3 in Appendix K provides the estimated levels of service for all signalized intersections in the City of Roseville under 2020 Plus Kaiser Expansion No Project and 2020 Plus Kaiser Plus SOI Amendment Expansion Area conditions. This table includes new intersections that would warrant signals under 2020 Plus Kaiser Expansion Plus SOI Amendment conditions.

Table 5-4 shows the number and percentage of City intersections that would operate at LOS C or better under 2020 Plus Kaiser Expansion No Project conditions. The table shows that out of 150 existing planned signalized intersections in the City of Roseville, under 2020 Plus Kaiser Expansion No Project conditions, 106 would operate at LOS C or better assuming no additional improvements beyond those currently identified in the City's CIP. These represent 70.7 percent of the total signalized intersections. The table also shows that 20 (13.3 percent), 18 (12.0 percent), and six (4.0 percent) of the signalized intersections, would operate at LOS D, E, and F, respectively.

Table 5-4 Intersection Operations 2020 Plus Kaiser Expansion Scenario (With Existing 2020 CIP)

	No Project		SOI Amendment		WRSP	
Level of Service	Number of Intersections	Percentage of total operating at this LOS	Number of Intersections	Percentage of total operating at this LOS	Number of Intersections	Percentage of total operating at this LOS
LOS A–C	106	70.7%	117	70.1%	111	70.3%
LOS D	20	13.3%	24	14.4%	22	13.9%
LOS E	18	12.0%	17	10.2%	19	12.0%
LOS F	6	4.0%	9	5.4%	6	3.8%
Total Intersections	***150***	***100%***	***167***	***100%***	***158***	***100%***

SOURCE: DKS Associates 2003

Table 5-4 also shows the number and percentage of City intersections that would operate at LOS C or better under both 2020 Plus Kaiser Expansion Plus SOI Amendment conditions. Development of the SOI Amendment would add 17 additional signalized intersections within or adjacent to the SOI Amendment Area. Under 2020 Plus Kaiser Expansion Plus SOI Amendment Area conditions, 117 signalized intersections would operate at LOS C or better assuming no additional improvements beyond those currently identified in the City's CIP. These represent 70.1 percent of the 167 total signalized intersections.

Table 5-5 shows the eleven intersections that would experience a significant level of service impact with buildout of the SOI Amendment under 2020 Plus Kaiser Expansion Plus SOI Amendment Area conditions. Six intersections that would operate at LOS C or better under 2020 Plus Kaiser No Project conditions would deteriorate to LOS D or worse under 2020 Plus Kaiser Plus SOI Amendment Area conditions. Four of these intersections would degrade to LOS D and two would degrade to LOS F. Four intersections that would already operate at LOS D or worse under 2020 Plus Kaiser No Project conditions would degrade to a worse LOS under 2020 Plus Kaiser Plus SOI Amendment conditions. Three of these would deteriorate from LOS D to LOS E, and one would deteriorate from LOS E to LOS F.

Table 5-5 Intersections With Significant Level of Service Impacts 2020 Plus Kaiser Expansion Scenario

Roadway		2020 No Project		2020 Plus SOI Amendment Area		2020 Plus WRSP	
North/south	East/west	LOS	V/C	LOS	V/C	LOS	V/C
Diamond Creek	Blue Oaks Blvd	A	0.56	F	1.09	E	0.93
Woodcreek Oaks	Blue Oaks Blvd	C	0.71	D	0.85	C	0.77
Vernon Street	Cirby Way	E	0.98	F	1.02	E	0.98
Eureka Rd	Douglas Blvd	D	0.89	D	0.86	E	0.91
Fiddyment Rd	Baseline Rd	D	0.87	E	0.96	E	0.91
Foothills Blvd	Blue Oaks Blvd	C	0.81	F	1.14	F	1.03
Foothills Blvd	Pleasant Grove	D	0.89	E	0.91	D	0.89
Foothills Blvd	Vineyard Rd	D	0.90	E	0.95	E	0.91
Fiddyment Rd	Pleasant Grove	A	0.59	D	0.85	D	0.85
Galleria Blvd	Antelope Creek	C	0.81	C	0.81	D	0.83
Gibson	Roseville Pkwy	C	0.78	D	0.84	D	0.83
Washington Blvd	Junction Blvd	C	0.80	D	0.83	D	0.84
Reserve Drive	Roseville Parkway	E	0.96	F	1.01	F	0.98

NOTE:
Intersections that experience a significant impact are shaded.
SOURCE: DKS Associates 2003

Potential improvements beyond 2020 CIP improvements, shown in Table 5-6 as recommended mitigation measures, were identified for five of the eleven impacted intersections. Several of these measures, are identical to measures identified in Chapter 4.3 because they would be required for the SOI Amendment Area, even if the Kaiser Expansion were not developed.

Table 5-6 Recommended Mitigation City of Roseville Intersections Cumulative (With Kaiser Expansion) SOI Amendment Scenario

Intersection		Recommended Mitigation	Level of Service	
North/South	East/West		Before Mitigation	After Mitigation
Diamond Creek	Blue Oaks Blvd	**MM 5-1:** Add 3rd eastbound and westbound thru lanes (requires widening of Blue Oaks Boulevard from Woodcreek Oaks to west of Diamond Creek) and Restripe southbound approach to 1 southbound left/thru/right lane and1 southbound left only lane	F	C
Woodcreek Oaks	Blue Oaks Blvd	**MM 5-2:** Add 2nd northbound left-turn lane and 2nd southbound left-turn lane	D	C
Vernon St	Cirby Way	No feasible improvement identified	F	F
Fiddyment Rd	Baseline Rd	**MM 5-3:** Add 2nd southbound left-turn lane Add 2nd northbound left-turn lane Add 3rd southbound thru lane Add 3rd northbound thru lane	E	C
Foothills Blvd	Blue Oaks Blvd	**MM 5-4:** Add 3rd southbound thru lane Add 3rd northbound left-turn lane Add 4th westbound thru lane	F	D
Foothills Blvd	Pleasant Grove	No feasible improvement identified	E	E
Foothills Blvd	Vineyard Rd	No feasible improvement identified	E	E
Fiddyment Rd	Pleasant Grove	No feasible improvement identified	D	D
Gibson	Roseville Pkwy	No feasible improvement identified	D	D
Washington Blvd	Junction Blvd	No feasible improvement identified	D	D
Reserve Drive	Roseville Pkwy	**MM 5-5:** Restripe northbound Reserve Drive approach to allow 1 left, 1 left/through and 1 right turn lane	F	E
Percentage of Intersections Citywide Operating at LOS C or Better			70.1%	71.9%

NOTE:
Intersections that experience a significant impact are shaded.
SOURCE: DKS Associates, 2003.

*MM 5-1: Add 3rd eastbound and westbound thru lanes to the intersection of **Diamond Creek and Blue Oaks Boulevard** (requires widening of Blue Oaks Boulevard from Woodcreek Oaks to west of Diamond Creek) and restripe southbound approach to one southbound left/thru/right land and one southbound left only lane. This measure would result in a LOS C (same as MM 4.3-1(a)).*

*MM 5-2: Add 2nd northbound left-turn lane and 2nd southbound left-turn lane at the intersection of **Woodcreek Oaks and Blue Oaks Boulevard** (same as MM 4.3-1(d)).*

*MM 5-3: Add 2nd southbound and northbound left-turn lanes and 3rd southbound and northbound through lanes at the intersection of **Fiddyment Road and Baseline Road** (same as MM 4.3-1(b)).*

*MM 5-4: Add 3rd southbound and 4th westbound thru lanes and a 3rd northbound left-turn lane at the intersection of **Foothills Boulevard and Blue Oaks Boulevard** (same as MM 4.3-1(c)).*

MM 5-5: Restripe northbound Reserve Drive approach to allow 1 left, 1 left/through, and 1 right turn lane at the intersection of ***Reserve Drive and Roseville Parkway****.*

Implementation of these improvements would provide a level of service as good or better than the 2020 Plus Kaiser Expansion No Project scenario at these five intersections (see Table 5-6). No feasible improvements were found at six of the affected intersections, which is the same as that identified under the 2020 Plus Full SOI Amendment scenario evaluated in Section 4.3 of Chapter 4.

MM 5-1 provides for the addition of a third through lane in each direction on Blue Oaks Boulevard at its intersection with Diamond Creek Boulevard. Under the 2020 CIP, Blue Oaks Boulevard would be widened to six lanes east of Woodcreek Oaks Boulevard. Further analysis of the travel demand under 2020 Plus SOI Amendment scenario indicates that the SOI Amendment Area would require widening Blue Oaks Boulevard through Diamond Creek from Woodcreek Oaks Boulevard to west of Crocker Ranch Road.

The following intersections would operate at LOS D or worse under the 2020 Plus Kaiser Expansion Plus SOI Amendment Area scenario because no feasible improvements are available to improve them to LOS C or better:

- Vernon St/Cirby Way
- Foothills/Pleasant Grove
- Foothills Blvd/Vineyard Road
- Fiddyment Road/Pleasant Grove Boulevard
- Gibson/Roseville Parkway
- Washington Blvd/Junction Boulevard

The City's level of service policy allows the City Council to take action to accept degradation in the level of service at one or more of the City's signalized intersections (from the levels identified in the 2020 CIP) as long as 70 percent or more of the total signalized intersections in the City would operate at LOS C or better. More than 70 percent of the City's signalized intersections would operate at LOS C or better under 2020 Plus Kaiser Expansion Plus SOI Amendment conditions with or without MM 5-1 through MM 5-5. Since no feasible improvements were found to mitigate significant impacts on levels of service at six intersections, the SOI Amendment contribution would be cumulatively considerable and would also result in a **significant and unavoidable** cumulative impact.

It should be noted that as part of Draft EIR on the Kaiser Medical Center Expansion, additional mitigation measures have been proposed at other intersections; however, the City has not yet acted on

the Kaiser Medical Center Expansion and, therefore, these mitigation measures cannot be assumed to be implemented. If adopted, some of those mitigation measures would further increase the percentage of intersections that would operate at LOS C or better under 2020 Plus Kaiser Expansion Plus SOI Amendment conditions.

West Roseville Specific Plan

An intersection level of service analysis was conducted for this scenario. This analysis includes all signalized intersections within the City of Roseville assumed under the Cumulative No Project scenario plus additional signals that would likely be warranted due to implementation of the WRSP. A planning-level signal warrant analysis indicates the following eight intersections would require signalization under the 2020 Plus Kaiser Expansion Plus WRSP scenario:

- Within WRSP
  - Fiddyment Road and Hayden Parkway South
  - Fiddyment Road and Hayden Parkway North
  - Blue Oaks Boulevard and Hayden Parkway
  - Blue Oaks Boulevard and West Side Drive
  - Blue Oaks Boulevard and "N/S" Street
  - Pleasant Grove Boulevard and Bob Doyle Drive
  - Pleasant Grove Boulevard and Village Green Drive
- Outside WRSP
  - Fiddyment Road and Westhills Drive

Table K-3 in Appendix K provides the estimated levels of service for all signalized intersections in the City of Roseville under 2020 Plus Kaiser Expansion No Project and 2020 Plus Kaiser Expansion Plus WRSP conditions. This table includes new intersections that would warrant signals under 2020 Plus WRSP conditions.

Development of the WRSP would add eight additional signalized intersections within or adjacent to the WRSP. Under 2020 Plus Kaiser Expansion Plus WRSP scenario, 111 signalized intersections would operate at LOS C or better (see Table 5-5). These represent 70.3 percent of the 158 total signalized intersections.

Table 5-5 shows the nine intersections that would experience a significant level of service impact under 2020 Plus Kaiser Expansion Plus WRSP conditions. Six intersections that would operate at LOS C or better under 2020 Plus Kaiser Expansion No Project conditions would deteriorate to LOS D or worse

under 2020 Plus WRSP conditions. Four of these would degrade to LOS D, one would degrade to LOS E and one would degrade to Los F. Three intersections that would already operate at LOS D or worse under Cumulative with Kaiser Expansion No Project conditions would degrade to a worse LOS under Cumulative with Kaiser Expansion Plus WRSP conditions. All of these would deteriorate from LOS D to LOS E.

Potential improvements beyond the 2020 CIP improvements, shown in Table 5-7 as recommended mitigation measures, were identified for four of the nine affected intersections. Several of these measures are identical to those identified in Section 4.3 because they would be required for the WRSP with or without the Kaiser Expansion.

Table 5-7 Recommended Mitigation City of Roseville Intersections 2020 Kaiser Expansion Plus WRSP Scenario

Intersection		Recommended Mitigation	Level of Service	
North/south	East/west		Before Mitigation	After Mitigation
Diamond Creek	Blue Oaks Blvd	MM 5-5: Add 3rd eastbound and westbound thru lanes (requires widening of Blue Oaks Boulevard from Woodcreek Oaks to west of Diamond Creek) and Restripe southbound approach to 1 southbound left/thru/right lane and1 southbound left only lane	E	B
Eureka Rd	Douglas Blvd	No feasible improvement identified	E	E
Fiddyment Rd	Baseline Rd	MM 5-6: Add 2nd northbound left-turn lane and 2nd southbound left-turn lane	E	D
Foothills Blvd	Blue Oaks Blvd	MM 5-7: Add 3rd southbound thru and 3rd northbound left-turn lanes Add 4th westbound thru lane	F	C
Foothills Blvd	Vineyard Rd	No feasible improvement identified.	E	E
Galleria Blvd	Antelope Creek	No feasible improvement identified	D	D
Fiddyment Rd	Pleasant Grove	MM 5-8: Add 3rd northbound and 3rd southbound thru lanes	D	C
Gibson	Roseville Pkwy	No feasible improvement identified	D	D
Washington Blvd	Junction Blvd	No feasible improvement identified	D	D
Percentage of Intersections Citywide Operating at LOS C or Better			70.3%	72.2%

NOTE: Intersections that experience a significant impact are shaded.
SOURCE: DKS Associates 2003

MM 5-5: Restripe northbound Reserve Drive approach to allow 1 left, 1 left/through, and 1 right turn lane at the intersection of ***Reserve Drive and Roseville Parkway****.*

MM 5-6: Add a 2nd northbound left-turn lane and a 2nd southbound left-turn lane to the intersection of ***Fiddyment Road and Blue Oaks Boulevard****.*

MM 5-7: Add 3rd southbound thru and 3rd northbound left-turn lanes, and a 4th westbound thru lane at the intersection of ***Foothills Boulevard and Blue Oaks Boulevard*** *(same as MM 4.3-2(c)).*

MM 5-8: *Add 3rd northbound and 3rd southbound thru lanes to the intersection of* ***Fiddyment Road and Pleasant Grove Boulevard*** *(same as MM 4.3-2(d)).*

Implementation of these measures would provide a level of service as good or better than the 2020 Plus Kaiser Expansion No Project scenario at these intersections (see Table 5-7). No feasible improvements were found at five intersections under 2020 Plus Kaiser Expansion Plus WRSP conditions, compared to three under 2020 Plus WRSP conditions.

Under the 2020 CIP, Blue Oaks Boulevard would be widened to six lanes east of Woodcreek Oaks Boulevard. Further analysis of the travel demand under 2020 Plus WRSP scenario indicates that the WRSP would require widening Blue Oaks Boulevard from Woodcreek Oaks Boulevard to west of Crocker Ranch Road, as indicated in MM 5-6.

The intersections for which feasible improvements are not available are

- Eureka Road/Douglas Boulevard
- Foothills Boulevard/Vineyard Road
- Galleria Boulevard/Antelope Creed
- Gibson/Roseville Parkway
- Washington Boulevard/Junction Boulevard

The mitigation measures discussed above would result in more than 70 percent of the total signalized intersections in the City operating at LOS C or better. Nonetheless, since no feasible improvements were found to mitigate significant impacts on levels of service at five intersections, the WRSP contribution would be cumulatively considerable and would also result in a **significant and unavoidable** cumulative impact.

It should be noted that as part of Draft EIR on the Kaiser Medical Center Expansion, additional mitigation measures have been proposed at other intersections; however, the City has not yet acted on the Kaiser Medical Center Expansion and, therefore, these mitigation measures cannot be assumed to be implemented. If adopted, some of those mitigation measures would further increase the percentage of intersections that would operate at LOS C or better under 2020 Plus WRSP conditions.

Cumulative Conditions with Placer Parkway

The Placer County Transportation Planning Agency (PCTPA) has developed a concept plan for Placer Parkway, a six-lane transportation facility that would connect SR-65 in the Lincoln/Roseville/Rocklin area to SR 70/99 (in Sutter County) to the Sacramento International Airport. This proposed connection is cited

in the Placer County General Plan and the PCTPA Regional Transportation Plan. Rapid growth and development proposals in southern and western Placer County, Northern Sacramento County, and Southern Sutter County, combined with the need to improve goods movement through the corridor, have intensified the need for a regional consensus on the future of this transportation facility.

Preliminary work has been done for the scope, schedule, and estimated cost of the environmental and engineering studies that would be necessary for adoption of a route for Placer Parkway by the California Transportation Commission (CTC) and local agencies. The subsequent detailed environmental review process would need to fully evaluate a range of viable alternatives at the same level of detail. PCTPA is starting a three- to four-year process to conduct a Tier 1 Environmental Impact Statement (EIS)/EIR, which would provide environmental clearance under both the National Environmental Policy Act (NEPA) and CEQA. The Federal Highway Administration (FHWA) will be the lead agency for the EIR under NEPA. The PCTPA will be the lead agency for the EIR under CEQA. The PCTPA will be conducting the environmental review and associated technical studies to define a precise alignment for Placer Parkway over the next several years.

Because the analysis shows that Placer Parkway would generally improve traffic conditions with the full SOI Amendment, no specific analysis was conducted for the WRSP (alone) under Cumulative with Placer Parkway conditions because a similar improvement in conditions would be anticipated with Placer Parkway and development of the WRSP.

As shown in Figure 6-3 (Alternative 3 Increased Intensity), in Chapter 6, Alternatives, a potential alignment for Placer Parkway identified in the Project Study Report (PSR) would pass through the WRSP and Remainder Area. Another potential conceptual alignment for Placer Parkway would parallel Baseline Road about one mile north of that east/west roadway. The third conceptual alignment would go through the middle of the WRSP area. All potential alignments are subject to change as a result of the Tier I analysis.

As demonstrated below, an alignment similar to the alignment considered in this EIR for Placer Parkway would provide a substantial benefit to the City of Roseville's roadway system. Under 2020 Plus SOI Amendment conditions (but without the mitigation identified for the SOI Amendment in Section 4.3), Placer Parkway would reduce the number of intersections in the City that would operate at LOS F from nine to four and would increase the number of intersections operating at LOS C or better from 117 to 122 (from 70.1 percent of the total signalized intersections to 73.1 percent).

The WRSP is not designed to accommodate an alignment for Placer Parkway because all of the identified alignments are conceptual, and, according to PCTPA, a "preferred" alignment has not been identified or

adopted. This EIR does evaluate an alternative that includes a Placer Parkway alignment in the northern portion of the WRSP and Remainder Area. Due to its strategic location within the potential Placer Parkway corridor, the WRSP or SOI Amendment could preclude potential feasible alignments that meet the purpose and need for that regional facility. However, there is a one mile-wide area between the WRSP and Sunset Boulevard West in which to locate the 1,000-foot corridor needed for the future parkway, so that a feasible alignment that avoids all or most of the WRSP and/or Remainder Area may be possible. Furthermore, the costs and benefits of placing the alignment through the WRSP and Remainder Area must be considered by PCTPA during its identification and selection of a preferred alignment. That analysis would take into account existing and planned land uses in the study area, such as the WRSP (if adopted).

City of Roseville Roadways

SOI Amendment Area

The City's travel demand model was used to estimate the change in daily and p.m. peak hour traffic volumes on roadways throughout the City of Roseville and in surrounding communities due to development of the SOI Amendment under 2020 conditions. The daily traffic volumes within the City under the 2020 SOI Amendment Area with Placer Parkway scenario are shown in Figure 5-5 (Daily Traffic Volumes Under 2020 With Placer Parkway Plus SOI Amendment Area).

An intersection level of service analysis was conducted for this scenario. This analysis includes all signalized intersections within the City of Roseville assumed under the 2020 No Project scenario plus signals that would likely be warranted due to development of the full SOI Amendment. A planning-level signal warrant analysis indicates the following 17 intersections would require signalization under the 2020 Plus SOI Amendment with Placer Parkway scenario:

- Within SOI Amendment Area
  - Fiddyment Road and Hayden Parkway South
  - Fiddyment Road and Hayden Parkway North
  - Fiddyment Road and SOI East/West Street
  - Fiddyment Road and Westhills Drive
  - Blue Oaks Boulevard and Hayden Parkway
  - Blue Oaks Boulevard and West Side Drive
  - Blue Oaks Boulevard and Phillip Road
  - Blue Oaks Boulevard and "N/S" Street
  - Pleasant Grove Boulevard and Collector "A"

- › Pleasant Grove Boulevard and Market Street
- › Pleasant Grove Boulevard and Collector "C"
- › Pleasant Grove Boulevard and West Side Drive
- › Baseline Road and Watt Avenue
- › Baseline Road and Market Street
- › Market Street and Collector "C"
- › Market Street and SOI "E/W" Street
- › Watt Ave and Collector "C"

■ Outside SOI Amendment

- › None

It was assumed that with full development of the SOI Amendment Area, Fiddyment Road from Pleasant Grove Boulevard to Baseline Road and the pre-existing Placer County signalized intersection of Watt Avenue and Baseline Road would be annexed by City of Roseville. The level of service analysis indicates that Fiddyment Road from north of Pleasant Grove Boulevard to Baseline Road would require widening to six lanes with development of the full SOI Amendment Area. This widening was reflected in the travel demand forecasts for this scenario.

Table K-4 in Appendix K provides the estimated levels of service for all signalized intersections in the City of Roseville under 2020 Plus SOI Amendment Area No Placer Parkway and 2020 Plus SOI Amendment Area Plus Placer Parkway conditions. This table includes new intersections that would warrant signals under 2020 Plus Full SOI Amendment conditions.

Table 5-8 shows the number and percentage of City intersections that would operate at LOS C or better under both 2020 Plus SOI Amendment Area No Placer Parkway and 2020 Plus SOI Amendment Plus Placer Parkway conditions. Under 2020 Plus SOI Amendment Area Plus Placer Parkway conditions (but without the mitigation identified for the SOI Amendment in Section 4.3) 122 signalized intersections would operate at LOS C or better. These represent 73.1 percent of the 167 total signalized intersections. This percentage is higher than the Cumulative Plus SOI Amendment without Placer Parkway scenario (see Table 5-8).

Figure 5-5 Daily Traffic Volumes Under 2020 With Placer Parkway Plus SOI Amendment Area

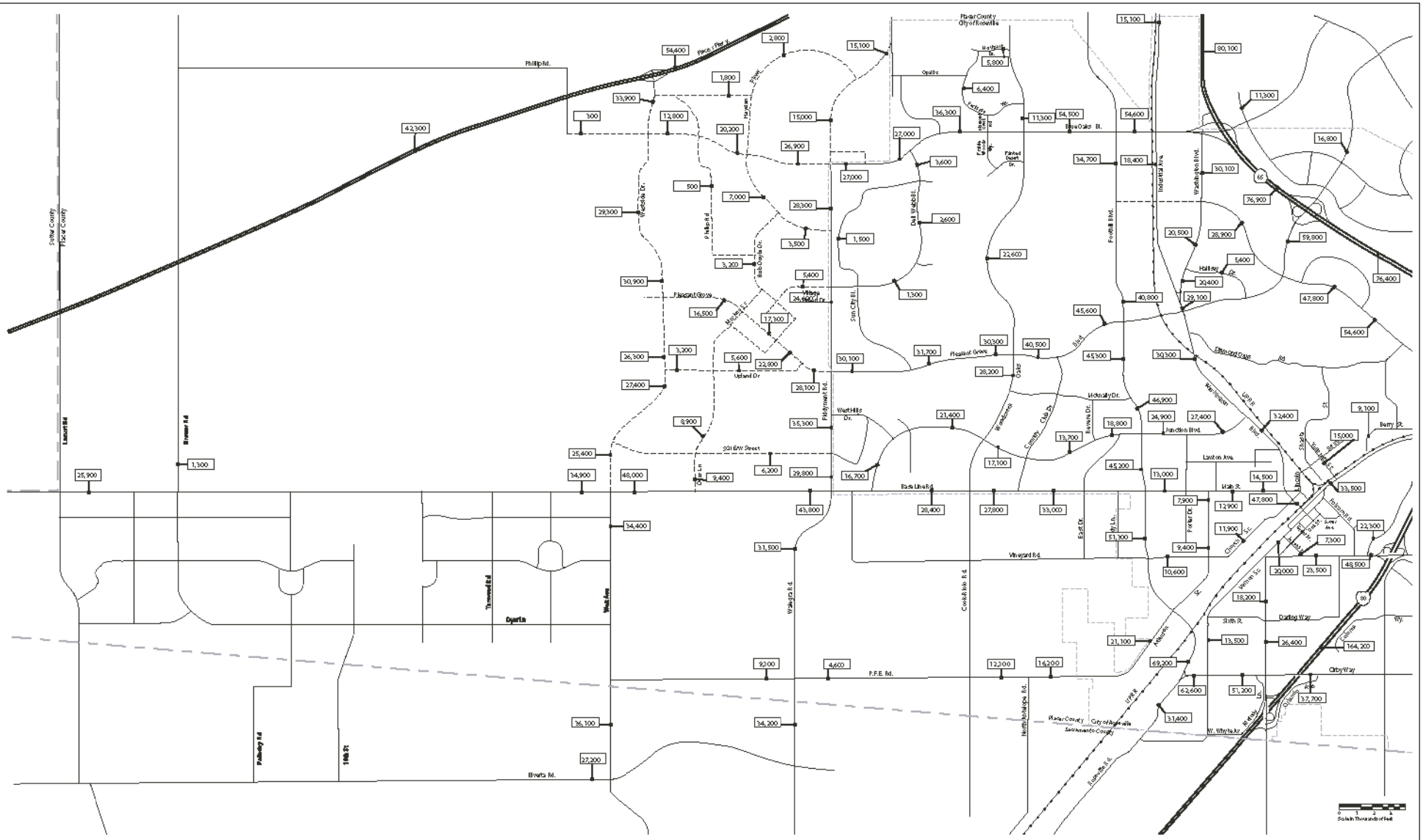

Placer County
City of Roseville
Sutter County
Placer County
Phillip Rd.
Lincoln Blvd.
Brewer Rd.
Watt Ave.
Walerga Rd.
Dyer-Kelly Rd.
Natomas Rd.
Fiddyment Rd.
Foothills Blvd.
Industrial Ave.
Washington Blvd.
Blue Oaks Blvd.
Pleasant Grove
Diamond Oaks Rd.
Junction Blvd.
Lawton Ave.
Main St.
Vineyard Rd.
Base Line Rd.
P.F.E. Rd.
Elverta Rd.
Walerga Rd.
Hallsey Rd.
16th St.
Duarte
Sacramento County
City of Roseville
Placer County
W. Whyte Ave.
Sixth St.
Darling Way
Cirby Way
Harding Blvd.
Fairchild Rd.
Fiddyment Rd.
Sun City Blvd.
Woodcreek Oaks Blvd.
Roseville Rd.
Antelope Rd.
Auburn Blvd.
Folsom Blvd.
Riverside Ave.
Douglas Blvd.
Eureka Rd.
Sierra College Blvd.
Taylor Rd.
Berry St.
Oak St.
Lincoln St.
Cirby Creek
Miners Ravine
Linda Creek
Dry Creek
Pleasant Grove Creek
Orchard Creek
Secret Ravine
Antelope Creek
Strap Ravine
Curry Creek
Industrial Ave.
Foothills Blv

Table 5-8 Intersection Operations 2020 Plus SOI Amendment Area Plus Placer Parkway (With Existing 2020 CIP)

Level of Service	2020 No Project (No SOI Amendment or Placer Parkway)		2020 Plus SOI Amendment Area		2020 Plus SOI Amendment Plus Placer Parkway	
	Number of Intersections	Percentage of total operating at this LOS	Number of Intersections	Percentage of total operating at this LOS	Number of Intersections	Percentage of total operating at this LOS
LOS A-C	107	71.3%	117	70.1%	122	73.1%
LOS D	23	15.3%	25	15.0%	26	15.6%
LOS E	14	9.3%	16	9.6%	15	9.0%
LOS F	6	4.0%	9	5.4%	4	2.4%
Total Intersections	***150***	***100%***	***167***	***100%***	***167***	***100%***

SOURCE: DKS Associates 2003

Table 5-9 shows the seven intersections that would experience a significant level of service impact 2020 Plus Amendment Area Plus Placer Parkway scenario. Six intersections that would operate at LOS C or better under 2020 No Project conditions would deteriorate to LOS D or worse under 2020 Plus SOI Amendment Area Plus Placer Parkway conditions. Five of these intersections would degrade to LOS D and one would degrade to LOS E. One intersection that would already operate at LOS D or worse under 2020 No Project conditions would degrade to LOS E under 2020 Plus SOI Amendment Area Plus Placer Parkway conditions.

Table 5-9 Intersections With Significant Level of Service Impacts 2020 Plus SOI Amendment Area Plus Placer Parkway

Roadway		2020 No Project (No SOI Amendment or Placer Parkway)		2020 Plus SOI Amendment Area		2020 Plus SOI Amendment Area Plus Placer Parkway	
North/south	East/west	LOS	V/C	LOS	V/C	LOS	V/C
Diamond Creek	Blue Oaks Blvd	A	0.57	F	1.08	D	0.90
I-80 WB Off	Douglas Blvd	C	0.81	C	0.79	D	0.83
Foothills Blvd	Blue Oaks Blvd	C	0.81	F	1.14	E	1.00
Foothills Blvd	Vineyard Rd	D	0.89	E	0.96	E	0.91
Gibson	Roseville Pkwy	C	0.78	D	0.85	D	0.82
Washington Blvd	Junction Blvd	C	0.80	D	0.83	D	0.82
Watt Ave	Baseline Rd	N/A	N/A	D	0.88	D	0.83

NOTE:
Intersections that experience a significant impact are shaded.
SOURCE: DKS Associates 2003

As shown in Table 5-10, potential improvements beyond the 2020 CIP improvements were identified for three of the six affected intersections:

Table 5-10 Recommended Mitigations For City of Roseville Intersections 2020 Plus Full SOI Area Plus Placer Parkway Scenario

Intersection		Recommended Mitigation	Level of Service	
North/south	East/west		Before Mitigation	After Mitigation
Diamond Creek	Blue Oaks Blvd	**MM 5-1:** Add 3rd eastbound and westbound thru lanes (requires widening of Blue Oaks Boulevard from Woodcreek Oaks to west of Diamond Creek) and Restripe southbound approach to 1 southbound left/thru/right lane and 1 southbound left only lane	E	C
I-80 WB Off	Douglas Blvd	No feasible improvement identified	D	D
Foothills Blvd	Blue Oaks Blvd	**MM 5-4:** Add 3rd southbound thru lane Add 3rd northbound left-turn lane Add 4th westbound thru lane	E	C
Foothills Blvd	Vineyard Rd	No feasible improvement identified	E	D
Gibson	Roseville Pkwy	No feasible improvement identified	D	D
Washington Blvd	Junction Blvd	No feasible improvement identified	D	D
Watt Ave	Baseline Rd	**MM 5-9:** Add 3rd northbound and add 3rd southbound thru lane	E	D
Percentage of Intersections Citywide Operating at LOS C or Better			73.1%	74.3%

SOURCE: DKS Associates 2003

MM 5-1: *Add 3rd eastbound and westbound thru lanes to the intersection of* **Diamond Creek and Blue Oaks Boulevard** *(requires widening of Blue Oaks Boulevard from Woodcreek Oaks to west of Diamond Creek) and re-stripe southbound approach to one southbound left/thru/right lane and one southbound left only lane. This measure would result in a LOS C (same as MM 4.3-1(a)).*

MM 5-4: *Add 3rd southbound thru lane, 3rd northbound left-turn lane, and 4th westbound thru lane to the intersection of* **Foothills Boulevard and Blue Oaks Boulevard**. *This measure would result in a LOS C (same as MM 4.3-1(c)).*

MM 5-9: *Add 3rd northbound and southbound thru lane to the intersection of* **Watt Avenue and Baseline Road**. *This measure would result in a LOS D (same as MM 4.3-1(f)).*

MM 5-1 and MM 5-4 were also identified under the 2020 Plus with SOI Amendment Area scenario with or without the Kaiser Expansion. MM 5-2 and MM 5-3 would not be required if Placer Parkway is constructed.

Implementation of MM 5-1, MM 5-4, and MM 5-9 would improve operations at two intersections to LOS C. At the intersection of Watt Avenue and Baseline Road, the recommended mitigation measure would improve conditions from LOS E to LOS D. No feasible improvements were identified for the following four intersections:

- I-80 WB Off/ Douglas Boulevard
- Foothills Blvd/Vineyard Road

- Gibson/Roseville Parkway
- Washington Blvd/Junction Boulevard

As previously discussed, the City's level of service policy allows the City Council to take action to except degradation in the level of service of one or more of its signalized intersections from the levels identified in the 2020 CIP as long as 70 percent or more of the total signalized intersections in the City would operate at LOS C or better. With or without the recommended intersection mitigation measures, more than 70 percent of the City's signalized intersections would operate at LOS C or better under 2020 Plus SOI Amendment Area Plus Placer Parkway conditions. However, since no feasible improvements were identified to mitigate significant impacts on levels of service at five intersections, the SOI Amendment contribution would be cumulatively considerable and would also result in a **significant and unavoidable** cumulative impact under the Placer Parkway scenario.

State Highways

SOI Amendment Area

Table 5-11 shows the projected daily traffic volumes and levels of service on State highways within the City of Roseville under 2020 Plus SOI Amendment Area Plus Placer Parkway conditions. Table 5-12 provides estimated change in daily traffic volumes for interchange ramps to the State highways within the City, while Table 5-13 provides the peak hour levels of service at intersections between freeway ramps and local roadways in Roseville. The analysis assumes that all of the 2020 transportation improvements contained in the Metropolitan Transportation Plan (MTP) would be implemented, including the widening of I-80 to accommodate HOV lanes between Madison Avenue and the Sacramento/Placer County line and construction of the State Route 65 Lincoln Bypass.

The estimated 2020 development levels under the adopted General Plans of Roseville and surrounding jurisdictions would increase traffic volumes on State highways within the City of Roseville. The analysis shows that I-80, between SR-65 and Sacramento/Placer County line, and SR-65, through Roseville, would operate at LOS F conditions during peak hours. Although traffic volumes would increase under SOI Amendment conditions, the degraded level of service anticipated on both I-80 and SR-65 under cumulative conditions would exist with or without the SOI Amendment, and Placer Parkway would reduce volumes on the certain (study) segments. Because the SOI Amendment would not cause a highway segment to operate at LOS F conditions (with or without Placer Parkway) and Placer Parkway would reduce traffic on most highway segments, its contribution would not be cumulatively considerable and is thus considered to be a **less-than-significant** cumulative impact.

Table 5-11 State Highways Average Daily Traffic Volumes 2020 Plus SOI Amendment Area Plus Placer Parkway Scenario

Facility	Segment	Lanes	2020 No Project (No SOI Amendment or Placer Parkway)		2020 Plus SOI Amendment Area		2020 Plus SOI Amendment Plus Placer Parkway	
			ADT	LOS	ADT	LOS	ADT	LOS
I-80	Sac. County line to Riverside Ave	8+2HOV	200,900	F1	201,400	F1	195,800	F1
	Riverside Avenue to Douglas Blvd	6	167,400	F3	166,400	F3	163,600	F2
	Douglas Blvd to Eureka Rd	6	159,800	F2	159,900	F2	155,600	F2
	Eureka Rd to SR-65	8	180,900	F1	181,900	F1	174,700	F1
	SR-65 to Rocklin Rd	6	116,900	E	117, 000	E	115,800	E
SR-65	Galleria to Pleasant Grove Blvd	4	75,700	D	76,300	E	76,000	E
	Pleasant Grove Blvd to Blue Oaks Blvd	4	75,300	D	75,900	D	76,400	E
	Blue Oaks Blvd to Sunset Blvd	4	82,300	F1	82,500	F1	80,400	F1
SR 70/99	North of Riego Road	4	28,800	A	28,700	A	45,300	B
	South of Riego Road	4	52,500	B	51,300	B	65,600	C

NOTES:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9
F1 represents LOS F conditions for 1 hour during the morning and evening peak commute periods while F2 represents LOS F conditions for 2 hours.
Intersections that experience a significant impact are shaded.
SOURCE: DKS Associates 2003

Table 5-12 Interchange Ramps Estimated Change in Average Daily Traffic Volumes 2020 Plus SOI Amendment Area Plus Placer Parkway Scenario

Interchange	Ramps	Estimated Change in Daily Volume Due to Development of SOI Amendment Area
I-80 / Riverside Ave	Westbound On from Southbound Riverside Ave	-2050 (15.3%)
	Westbound On from Northbound Riverside Ave	+290 (6.1%)
	Westbound Off	-480 (6.3%)
	Eastbound On	+180 (2.5%)
	Eastbound Off to Northbound Riverside Ave	-150 (1.4%)
	Eastbound Off to Auburn Blvd/Orlando Ave	+260 (2.1%)
SR-65 / Pleasant Grove Blvd	Northbound On from Eastbound Pleasant Grove	+240 (5.7%)
	Northbound On from Westbound Pleasant Grove	+240 (11.2%)
	Northbound Off	+350 (4.0%)
	Southbound On from Eastbound Pleasant Grove	-390 (5.8%)
	Southbound On from Westbound Pleasant Grove	-370 (12.8%)
	Southbound Off	-60 (0.9%)
SR-65 / Blue Oaks Blvd	Northbound On	-750 (6.0%)
	Northbound Off to Eastbound Blue Oaks Blvd	-100 (4.3%)
	Northbound Off to Westbound Blue Oaks Blvd	+450 (4.7%)
	Southbound On from Eastbound Blue Oaks Blvd	+620 (6.9%)
	Southbound On from Washington Blvd	-180 (6.7%)
	Southbound Off	-1040 (7.6%)

SOURCE: DKS Associates 2003

Table 5-13 State Highway Ramps Level of Service at Intersections 2020 Plus SOI Amendment Area Plus Placer Parkway Scenario

Location	2020 No Project (No SOI Amendment or Placer Parkway)		2020 Plus SOI Amendment Area		2020 Plus SOI Amendment Area Plus Placer Parkway	
	LOS	V/C	LOS	V/C	LOS	V/C
Riverside Ave and I-80 WB Off-ramp	A	0.44	A	0.44	A	0.44
SR-65 NB Off-ramp and Blue Oaks Blvd	A	0.68	C	0.71	A	0.60
SR-65 NB Off-ramp and Pleasant Grove	A	0.54	A	0.54	A	0.52
SR-65 SB Off-ramp and Pleasant Grove	A	0.51	A	0.50	A	0.48
Washington Blvd/SR-65 SB Off and Blue Oaks Blvd	B	0.66	B	0.68	A	0.59
I-80 WB Off-ramp and Douglas Blvd	C	0.81	C	0.79	D	0.83
I-80 WB On-ramp and Atlantic St	C	0.75	C	0.73	C	0.71
SR-65 NB On-ramp and Stanford Ranch Blvd	B	0.68	B	0.69	B	0.69
SR-65 SB On-ramp and Stanford Ranch Blvd/Galleria Blvd	C	0.73	C	0.75	C	0.74
I-80 WB Off-ramp/Taylor Rd and Eureka Rd	E	0.94	E	0.91	D	0.89

SOURCE: DKS Associates 2003

Placer County Roadways

SOI Amendment Area

Table 5-14 shows the projected daily traffic volumes on Placer County roadways under Cumulative Plus SOI Amendment with Placer Parkway conditions. These daily volumes were estimated by the City of Roseville's travel demand model. The analysis assumes that those improvements to Placer County's roadways that were included in the Sacramento Area Council of Government's (SACOG's) MTP for 2020 would be implemented. This includes the widening of Baseline Road from Fiddyment Road to west of Watt Avenue to six lanes (including the portion adjacent to Area 1 of Placer Vineyards) and the remainder of Baseline Road to the Sutter County line to 4 lanes, as well as the widening of both Watt Avenue and Walerga Road between Baseline Road and the Sacramento/Placer County line. It was assumed that with full development of the SOI Amendment Area, Fiddyment Road from Pleasant Grove Boulevard to Baseline Road would be annexed into the City of Roseville and thus would not be part of Placer County's roadway system.

Table 5-14 Placer County Average Daily Traffic Volumes and Levels of Service 2020 Plus SOI Amendment Area Plus Placer Parkway Scenario

Roadway	Location	Assumed Lanes in 2020	2020 No Project (No SOI Amendment or Placer Parkway)		2020 Plus SOI Amendment Area		2020 Plus SOI Amendment Area Plus Placer Parkway	
			ADT	LOS	ADT	LOS	ADT	LOS
Baseline Road	Sutter Co. to Tanwood	4	29,300	D	30,200	D	25,900	C
	Tanwood to Watt Ave	6	32,700	B	36,500	B	34,500	B
	Watt Ave to Fiddyment	6	51,600	E	46,300	D	43,600	D
Fiddyment Road	Baseline Rd to Pleasant Grove Blvd	4	33,300	E	N/A[1]	N/A[1]	N/A[1]	N/A[1]
	Roseville City Limits to Sunset	2	12,900	C	16,000	D	12,600	B
Walerga Road	Baseline Road to PFE Road	4	27,700	C	33,000	E	32,200	D
Watt Avenue	Baseline Road to PFE Road	4	27,800	C	36,100	F	33,100	E
Phillip Road	Proposed Project to Brewer Road	2	300	A	3,000	A	200	A

NOTES:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.
Intersections that experience a significant impact are shaded.
1. Roadway segment would be within City limits under this scenario.
SOURCE: DKS Associates 2003

A roadway segment level of service analysis (summarized in Table 5-15) indicates that development under 2020 Plus SOI Amendment Area Plus Placer Parkway conditions would cause Watt Avenue between Baseline Road and PFE Road to worsen from LOS C to LOS E and Walerga Road between Baseline Road and PFE would worsen from LOS C to LOS D.

Table 5-15 Placer County Intersection Levels of Service 2020 Plus SOI Amendment Area Plus Placer Parkway Scenario

Roadway		2020 No Project (No SOI Amendment or Placer Parkway)		2020 Plus SOI Amendment Area		2020 Plus SOI Amendment Area Plus Placer Parkway	
North/south	East/west	LOS	V/C	LOS	V/C	LOS	V/C
Watt Avenue	PFE Road	C	0.73	D	0.87	D	0.87
Watt Avenue	Baseline Road	C1	0.73	E1	0.98	E1	0.92
Pleasant Grove Dr	Baseline Road	D	0.87	E	0.92	E	0.92

NOTES:
All intersections assumed to be signalized by 2020
Intersections that experience a significant impact are shaded.
1. Level of service analysis for this intersection is based on modified Circular 212 capacities used by Roseville for its CIP
SOURCE: DKS Associates 2003

An intersection level of service analysis, summarized in Table 5-16, was also conducted at several key intersections in unincorporated Placer County under 2020 Plus SOI Amendment Area Plus Placer Parkway conditions. This analysis indicates under 2020 Plus SOI Amendment Area Plus Placer Parkway conditions; the intersection of Watt Avenue and PFE Road would worsen from LOS C to LOS D, the intersection of Watt Avenue and Baseline Road would worsen from LOS C to LOS E, and the intersection of Pleasant Grove Drive and Baseline Road would degrade from LOS D to LOS E. In each case, this degradation would occur with or without Placer Parkway

Table 5-16 Placer County Roadway Segment Mitigations 2020 Plus SOI Amendment Area Plus Placer Parkway

Roadway	Location	Assumed Lanes in 2020	Mitigation	LOS	
				Before Mitigation	After Mitigation
Walerga Road	Baseline Road to PFE Road	4	**MM 5-10:** Widen to 6 lanes	E	B
Watt Avenue	Baseline Road to PFE Road	4	**MM 5-11:** Widen to 6 lanes	F	B

NOTES:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.
Segments that operate at LOS D or worse are shaded.
SOURCE: DKS Associates 2003

The degradation of County roadway and intersection operations to LOS D or worse would be cumulatively considerable and would also result in a significant cumulative impact. Implementation of the mitigation measures summarized in Tables 5-16 and 5-17 would improve conditions on affected roadways to acceptable (less than significant) levels. Several of these measures were also identified for the 2020 Plus SOI Amendment Area without Placer Parkway, as discussed in Section 4.3 of Chapter 4.

Table 5-17 Placer County Recommended Mitigations For Intersections 2020 Plus SOI Amendment Area Plus Placer Parkway

Intersection		Recommended Mitigation	Level of Service	
North/south	East/west		Before Mitigation	After Mitigation
Watt Avenue	PFE Road	**MM 5-12:** Widen Watt Ave to 6 lanes at this intersection	D	C
Watt Avenue	Baseline Road	**MM 5-13:** Add 3rd northbound and 3rd southbound through lanes.	E	C or better
Pleasant Grove Dr	Baseline Road	**MM 5-14:** Add northbound right turn lane	E	D

NOTE:
Intersections that operate at LOS D or worse are shaded.
SOURCE: DKS Associates 2003

MM 5-10: *Widen **Walerga Road between Baseline Road and PFE Road** to six lanes. This measure would result in LOS B conditions on this segment.*

MM 5-11: *Widen **Watt Avenue between Baseline Road and PFE Road** from four to six lanes. Based on Placer County's roadway segment capacities, this measure would result in LOS C or better conditions on this segment of Watt Avenue (same as MM 4.3-4(c).*

MM 5-12: *Widen **Watt Avenue** to six lanes at the intersection with* PFE Road. *This measure would result in LOS C.*

MM 5-13: *Add 3rd northbound and southbound through lanes at the intersection of **Watt Avenue and Baseline Road**, which would result in LOS D(same as MM 4.3-4(f)).*

MM 5-14: *Add a northbound right turn lane to the intersection of **Pleasant Grove Drive and Baseline Road** (same as MM 4.3-4(g)).*

Implementation of the above measures would reduce this impact to a less-than-significant level. However, the improvements lie outside the jurisdiction of the City of Roseville, and within the jurisdiction of Placer County. If the improvements are not implemented, levels of service would remain as shown in Tables 5-14 and 5-15. Therefore, the SOI contribution would be cumulatively considerable and would also result in a **significant and unavoidable** cumulative impact.

City of Rocklin Roadways

SOI Amendment Area

Table 5-18 shows the projected daily traffic volumes on roadways in the City of Rocklin under the 2020 Plus SOI Amendment Area Plus Placer Parkway scenario. These daily volumes were estimated by the City of Roseville's travel demand model. The analysis assumes that those improvements to Rocklin's roadways that were included in Rocklin's 2020 Capital Improvement Program (CIP), plus the roadways in Rocklin's proposed Northwest Annexation Area would be implemented.

Table 5-18 City of Rocklin Roadways Average Daily Traffic Volumes and Levels of Service 2020 Plus SOI Amendment Area Plus Placer Parkway

Roadway	Location	Assumed Lanes in 2020	2020 Without Project (No SOI Amendment or Placer Parkway)		2020 Plus SOI Amendment Area		2020 Plus SOI Amendment Area Plus Placer Parkway	
			ADT	LOS	ADT	LOS	ADT	LOS
Sunset Blvd	SR-65 to W. Stanford Ranch	6	27,100	A	30,000	A	28,400	A
	W. Stanford Ranch W. Oaks	6	40,800	C	41,400	C	39,000	C
	W. Oaks to Park	6	40,900	C	43,400	C	41,800	C
	Park to Stanford Ranch	6	42,200	C	44,300	D	42,600	C
	Stanford Ranch to Whitney Blvd	6	40,700	C	42,300	C	40,500	C
	Whitney Blvd to Pacific Ave	6	46,900	D	47,800	D	46,700	D
Park Drive	Roseville City limits to Sunset Blvd	4	17,500	A	17,500	A	17,100	A
Blue Oaks Blvd	Route 65 to Lone Tree Blvd	6	37,000	B	41,500	C	37,200	C
	Lone Tree Blvd to Sunset Blvd	4	25,600	C	26,200	C	24,800	B
Stanford Ranch Rd	Fairway Dr to Sunset Blvd	6	28,000	A	28,400	A	27,400	A

NOTES:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9
Intersections that experience a significant impact are shaded.
SOURCE: DKS Associates 2003

Buildout of the City of Roseville plus the estimated "2020 market levels" of development under the adopted General Plans of other jurisdictions in South Placer County would increase traffic volumes on Rocklin's roadways. Because no segment would degrade from LOS C or better to LOS D or worse under the Placer Parkway scenario, the SOI contribution would not be cumulatively considerable and would also result in a **less-than-significant** cumulative impact.

Sutter County Roadways

SOI Amendment Area

Table 5-19 shows the projected daily traffic volumes on selected roadways in Sutter County under the 2020 Plus SOI Amendment with Placer Parkway scenario. These daily volumes were estimated by the City's travel demand model. The level of service analysis for Sutter County roadways, also shown in Table 5-19, is based on the daily roadway capacities and level of service criteria from the EIR on the Placer County General Plan. Under 2020 Conditions, buildout of Phase 1 of the South Sutter County Specific Plan was assumed by 2020. Therefore, this analysis also assumes that the Phase 1 improvements to Sutter County roadways that were included in the South Sutter County Specific Plan would be implemented by 2020, including a widening of Riego Road to six lanes and construction of an interchange at SR 70/99 and Riego Road.

Table 5-19 Sutter County Roadways Average Daily Traffic Volumes and Levels of Service 2020 Plus SOI Amendment Area Plus Placer Parkway

Roadway	Assumed Lanes in 2020	2020 Without Project (No SOI Amendment nor Placer Parkway)		2020 Plus SOI Amendment Area		2020 Plus SOI Amendment Area Plus Placer Parkway	
		ADT	LOS	ADT	LOS	ADT	LOS
Riego Road	6	25,600	A	27,100	A	23,900	A
Sunset West/Howsley Road	2	5,900	A	6,500	A	900	A
Catlett Road	2	200	A	100	A	100	A

NOTES:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9
SOURCE: DKS Associates 2003

Buildout of the City of Roseville plus the estimated "2020 market levels" of development under the adopted General Plans of other local jurisdictions would increase traffic volumes on Sutter County roadways. The analysis shows that Riego Road at the Sutter/Placer County line would operate at LOS F conditions as a two-lane roadway during peak hours in 2020. If the Phase 1 roadway improvements that were included in the South Sutter County Specific Plan are implemented, the six lanes on Riego Road would provide LOS A conditions with or without the SOI Amendment and with or without Placer Parkway under Cumulative Conditions. Therefore, the SOI contribution would not be cumulatively considerable and the cumulative impact on Sutter County Roadways would be **less than significant**.

Table 5-20 shows the projected daily traffic volumes on Sacramento County roadways under Cumulative Plus SOI Amendment with Placer Parkway scenario. These daily volumes were estimated by the City of Roseville's traffic demand model. The analysis assumes that those improvements to Sacramento County's roadways that were included in the Sacramento County's roadways that were included in the

Sacramento Area Council of Government's (SACOG's) Metropolitan Transportation Plan (MTP) for 2020 would be implemented with and without the proposed project.

Table 5-20 Sacramento County Average Daily Traffic Volumes and Levels of Service 2020 Plus SOI Amendment Area Plus Placer Parkway Scenario

Roadway	Location	Assumed Lanes in 2020	2020 Without Project (No SOI Amendment nor Placer Parkway)		SOI Amendment		SOI Amendment Area Plus Placer Parkway	
			ADT	LOS	ADT	LOS	ADT	LOS
Watt Avenue	Placer Co Line to Elverta Rd	4	33,500	E	36,200	F	36,100	F
Walerga Road	Placer Co Line to Elverta Rd	4	31,200	D	34,800	E	34,200	E
Elverta Road	West of Watt Avenue	4	28,100	C	29,00	D	27,200	C

NOTES:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9
Intersections that experience significant impacts are shaded.
SOURCE: DKS Associates 2003

A roadway segment level of service analysis (summarized in Table 5-20) indicates that development of the full SOI Amendment would cause Watt Avenue from the Placer County Line to Elverta Road to worsen from LOS E to LOS F and Walerga Road from Placer County Line to Elverta Road to worsen from LOS D to LOS E. OF these LOS changes, only a degradation of LOS from E to F is considered an impact in Sacramento County.

Implementation of the measures identified in Table 5-21 would reduce this impact to a less-than-significant level. However, the improvements lie outside the jurisdiction of the City of Roseville. Sacramento County can implement this suggested mitigation measure, but may choose not to. If the improvement is not made, levels of service would remain as shown in Table 5-20.

Table 5-21 Sacramento County Roadway Segment Mitigations 2020 Plus Full SOI Amendment With Placer Parkway

Roadway	Location	Assumed Lanes in 2020	Mitigation	LOS	
				Before Mitigation	After Mitigation
Watt Avenue	Baseline Road to PFE Road	4	5-15: Widen to 6 lanes	36,100	F

NOTES:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9
Intersections that experience significant impacts are shaded.
SOURCE: DKS Associates 2003

*MM 5-15: Widen **Watt Avenue between the Placer County Line and Elverta Road** from four to six lanes. This measure would result in LOS C or better (same as MM 4.3-6).*

Cumulative Conditions with Additional Development

Within the City, 2020 conditions includes existing development and buildout of the existing General Plan through the year 2020, including full buildout of the Southeast Roseville Specific Plan, the Northwest

Roseville Specific Plan, the Northeast Roseville Specific Plan, the North Central Roseville Specific Plan, the North Roseville Specific Plan (Phases 1 through 3), the Del Webb Specific Plan, Highland Reserve North Specific Plan, and the Stoneridge Specific Plan. Also included are buildout of the City's Infill Area and North Industrial Area. Land use assumptions within the City are shown in Table 5-2.

Where 2020 impacts extend beyond the City, the cumulative analysis is based on assumptions for growth in Rocklin, Lincoln, unincorporated Placer County, and a portion of Sutter County through the year 2020, which is the horizon year for the City's traffic model. Development assumptions for these areas are shown in Table 5-3. The locations of the primary development projects in Placer County are shown in Figure 5-1.

Outside of Placer County, the 2020 land use and trip generation estimates prepared by the Sacramento Area Council of Governments (SACOG) for the 1999 Metropolitan Transportation Plan (MTP) were assumed, except in South Sutter County where buildout of Phase 1 of the South Sutter County Specific Plan was assumed. These assumptions form the basis of the 2020 analysis provided in Section 4.3 of this document and the Kaiser and Placer Parkway scenarios in this chapter.

A qualitative traffic analysis was conducted for a cumulative scenario that adds the following potential (or speculative) development to 2020 conditions as provided in Section 5.2.2.

The additional 480,000 to 550,000 daily vehicle trips that could result from these development projects would greatly increase traffic volumes on the arterial roadways in west Placer County and the western portion of the City of Roseville. Under cumulative conditions with buildout of the WRSP, some roadways in those areas would operate at LOS D, E, or F conditions, including

- Portions of Foothill Boulevard between Blue Oaks Boulevard and Cirby Way
- Portions of Baseline Road between Sutter County and Foothill Boulevard
- Portions of Fiddyment Road Baseline Road and Sunset Boulevard
- Portions of Walerga Road south of Baseline Road
- Portions of Watt Avenue south of Baseline Road

With buildout of the SOI Amendment Area, a larger portion of these arterial roadways in west Placer County and the western portion of the City of Roseville would operate at LOS D, E, or F conditions.

Under the additional cumulative development condition, which includes the speculative projects, traffic congestion would worsen along these arterial roadways unless substantial roadway improvements are implemented. On some of these roadways, improvements beyond planned improvements, or beyond the

recommended mitigation measures for the WRSP or the SOI Amendment area, may not be feasible. Therefore, additional **significant and unavoidable** impacts could result due to development under the additional cumulative development scenario.

Development would add traffic to the roadway system in Placer County and also exacerbate traffic conditions on roadways in western Sutter County and north Sacramento County. Adding traffic from the WRSP and Remainder Area to projected 2020 traffic and traffic from the post-2020 and/or speculative projects would further degrade local roadway operations, as well as State highways. Because the traffic model does not extend beyond 2020, and the amount, type, and distribution of development of the speculative projects is uncertain, a quantitative analysis cannot be prepared. Therefore, service levels and the need for mitigation is not known at this time. These projects, if formally proposed, would be subject to CEQA and would need to conduct their own environmental review, which would include the pending or approved WRSP and SOI Amendment in the cumulative impact analysis. Likely mitigation for significant traffic and transportation impacts would include roadway and intersection improvements, which could generate air pollutants and noise during construction; result in the potential loss of farmland and/or biological resources, including wetlands and special-status species habitat; cause the degradation of water quality due to erosion and/or surface runoff; and generate increased traffic noise.

Air Quality

The cumulative air quality context is the Sacramento Valley Air Basin, which is currently designated as non-attainment for State PM10 standards and nonattainment for State and federal ozone standards. The emission inventory and the State Implementation Plan (SIP) for the Sacramento Valley Air Basin is currently being updated. Due to the substantial amount of growth and an unplanned increase in vehicle emissions from sport utility vehicles, the current SIP is outdated and underestimates emissions that are generated within the air basin.

Construction Emissions

For purposes of this air quality discussion, the cumulative analysis for the WRSP Area is provided before the cumulative analysis for the SOI Amendment Area, because it provides important background information applicable to both areas.

West Roseville Specific Plan

Cumulative development would result in multiple construction projects occurring at the same time, generating emissions from earthmoving activities, heavy equipment operation, workers traveling to and from the construction sites, and miscellaneous activities such as the paving of roadways and parking lots

and the painting of commercial/residential structures. Such emissions could include reactive organic gases, nitrogen oxides, and particulate matter in excess of significance thresholds.

Earthmoving activities could result in substantial fugitive dust (PM_{10}) emissions, and would be likely to generate localized PM_{10} concentrations in excess of State and federal standards. A major portion of the PM_{10} would settle on the construction site or its immediate vicinity, while a small fraction would contribute to regional ambient particulate concentrations. PM_{10} emissions associated with construction of the WRSP area are estimated to exceed the PCAPCD threshold of 82 lbs/day, even with MM 4.1-1, which requires dust control measures.

Exhaust emissions would be generated by construction equipment operations and construction employee vehicle trips. These emissions would include CO, ROG, NOx, SO2, and particulates. Painting and paving of roadways would primarily release ROG into the atmosphere. Exhaust emissions associated with construction of the WRSP area are estimated to exceed PCAPCD's thresholds of 82 lbs/day for ROG and NOx.

Although the WRSP would contribute to these cumulative impacts on a temporary basis (i.e., construction emissions are terminated once a project is built), the size of the WRSP area and the amount of construction that would occur would result in a substantial contribution to an existing air quality problem. Furthermore, even with implementation of the identified rules and regulations, the City of Roseville construction standards, and MM 4.4-1 and MM 4.4-3, the development of the WRSP would generate emissions that would exceed the PCAPCD thresholds. Therefore, development of the West Roseville Specific Plan would be cumulatively considerable in combination with other development in the region and would result in a **significant and unavoidable** cumulative impact on air quality.

SOI Amendment Area

Construction emissions for development of the SOI Amendment Area are estimated to exceed PCAPCD thresholds even with compliance with rules and regulations and implementation of MM 4.4-2 and MM 4.4-4, which require dust control and emissions reduction measures. Therefore, development of the SOI Amendment would be cumulatively considerable, in combination with other development in the region, and would also result in a **significant and unavoidable** cumulative impact.

Operational Emissions

SOI Amendment Area/WRSP

Operational emissions associated with development of the SOI Amendment Area, including the WRSP, would exceed the PCAPCD thresholds for ROG, NOx, and PM_{10}. As with the WRSP, development of the SOI Amendment Area is not planned in the City of Roseville General Plan or the Placer County General Plan. As a result, the emissions associated with the development of the SOI Amendment Area are not accounted for in the SIP. Therefore, growth associated with the SOI Amendment Area would hinder the PCAPCD's ability to bring the region into attainment of federal and State ambient air quality standards.

Compliance with the City's Transportation Systems Management Ordinance and implementation of MM 4.4-5 for the WRSP and MM 4.4-6 for the Remainder Area would reduce the emissions produced within the SOI Amendment Area. However, even with implementation of all recommended mitigation measures, emissions associated with operational activities would exceed PCAPCD standards and would contribute considerably to the regional degradation of air quality. The project's contribution would be cumulatively considerable and would also result in a **significant and unavoidable** impact on the SOI Amendment Area.

As previously noted, the WRSP is located in an area that is designated non-attainment for ozone and PM10. Vehicles, industrial and commercial operations, and some residential activities (e.g., burning wood in fireplaces) would generate ozone precursors (i.e., reactive organic gases and nitrogen oxides), contributing to the ozone problem within the Sacramento Valley Air Basin. Vehicles are the primary sources of reactive organic gases and nitrogen oxides (ozone precursors) in the air basin. Area sources, such as residential wood-burning stoves and fireplaces, are substantial sources of particulate matter. Operational emissions from development of the WRSP are estimated to exceed PCAPCD thresholds for ROG, NOx, and PM10.

In order to bring the region into compliance with State and federal air pollutant standards, air districts use General Plans and similar planning documents to determine where and how much future growth will occur within the region. When development occurs that is not consistent with the intensity of development presented in a General Plan or if it was not previously accounted for in a General Plan, it is assumed that the emissions associated with that development were unaccounted for in the State Implementation Plan (SIP), which could hinder the region's ability to come into compliance with State and federal air pollutant standards. Although many criteria air pollutants within the Sacramento Valley Air Basin were accounted for in the SIP, current growth forecasts for the Roseville area are now higher

than expected when the existing plans were prepared; therefore, emissions associated with the proposed project will adversely affect the region's ability to achieve compliance with air quality standards.

Development of the WRSP is not accounted for in the City of Roseville General Plan. As a result, the emissions associated with the development of the WRSP are not accounted for in the SIP. Project-related growth associated with the WRSP will make it more difficult for the region to attain the federal and State ambient air quality standards. If other areas that are not currently included in adopted planning documents (e.g., the possible future university west of the WRSP) are developed, cumulative degradation of air quality would be expected to increase, and the District's efforts to achieve federal and State standards would be further impeded. As with the WRSP, measures to reduce operational emissions could be applied to cumulative development, but the emissions would still increase as the overall amount of development increases.

Compliance with the City's Transportation Systems Management Ordinance and implementation of MM 4.4-5, which requires a number of measures to reduce vehicular and area source emissions, would reduce the amount of emissions generated by the WRSP. The WRSP also includes a variety of policies that would promote the use of alternative forms of transportation and pedestrian access to commercial, and office uses within the WRSP site. However, because air emissions associated with the WRSP are not accounted for in regional air quality attainment plans, and WRSP emissions would exceed PCAPCD thresholds, development of the WRSP would be cumulatively considerable and would also result in a **significant and unavoidable** cumulative impact on regional air quality.

Localized CO Emissions

SOI Amendment Area

Intersections that are projected to operate at LOS D or worse under cumulative 2020 conditions with buildout of the SOI Amendment Area are shown in Table 4.4-9. The highest CO concentration would occur at the intersection of Foothills Boulevard/Blue Oaks Boulevard and at Vernon Street/Cirby Way, with an estimated 1-hour concentration of 4.5 ppm and an estimated 8-hour concentration of 3.3 ppm. These levels are far enough below the PCAPCD thresholds that additional planned, proposed, or potential development would not be expected to cause the CO thresholds to be violated. Therefore, the SOI would not be cumulatively considerable and would be a **less-than-significant** cumulative impact.

West Roseville Specific Plan

Background CO concentrations in the Roseville area are low, and future roadside CO concentrations are expected to decrease from existing roadside CO concentrations despite anticipated increases in traffic

volumes due to improved fuel combustion efficiency. As shown in Section 4.4, Air Quality (Impact 4.4-5), the highest CO concentration that would occur with buildout of the City and development of the West Roseville Specific Plan would occur at the intersection of Foothills Boulevard/Blue Oaks Boulevard, with an estimated 1-hour concentration of 4.4 ppm and an estimated 8-hour concentration of 3.2 ppm. These levels are well below the PCAPCD threshold, and CO concentrations are not expected to rise. Therefore, addition of traffic from the WRSP would not be cumulatively considerable even with buildout of the City, and development of planned, proposed, and potential projects in the Air Basin and would result in a **less-than-significant** cumulative impact on air quality.

Toxic Air Contaminants

SOI Amendment Area

As with the WRSP, residents within and adjacent to the SOI Amendment Area would be exposed to additional multiple sources of TACs beyond current ambient levels, including TACs from stationary sources (e.g., PGWWTP and the proposed Roseville Energy Park), TACs from diesel particulate matter, TACs from industrial sources within the SOI Amendment Area, and TACs from certain commercial sources in the SOI Amendment Area or other surrounding development.

MM 4.4-7 would reduce the health risk associated with receptors living within the SOI Amendment Area by ensuring that industrial operations evaluate TAC emissions and meet acceptable standards. The primary source of TACs in or near the SOI Amendment Area would be the PGWWTP, Roseville Energy Park, and WRSP industrial operations. County land to the west and north of the Remainder Area is currently in agricultural production and Placer Vineyards to the south does not provide for industrial development. Because TAC emissions would be generated within the City, MM 4.4-7 would be adequate to protect SOI Amendment Area residents from TAC emissions. The SOI would not be cumulatively considerable and would result in a **less-than-significant** cumulative impact on TAC levels.

West Roseville Specific Plan

Existing and proposed development in the Roseville area would include industrial stationary sources that emit toxic air contaminants. Stringent permitting requirements and federal, State, and local regulations guide the development and operation of industrial facilities to ensure that individual facilities do not exceed adopted TAC standards. There are two stationary sources in close proximity to the WRSP that could emit TACs: the PGWWTP and the proposed Roseville Energy Park. Industrial operations in the Sunset Industrial Area and Placer Ranch could also generate TACs in proximity to the WRSP. In addition to stationary sources, mobile sources would generate TACs. As discussed in Section 4.4 of this document, the CARB recently identified diesel particulate matter as a TAC. The majority of

diesel particulate matter is emitted by mobile equipment, including construction equipment, delivery trucks, and buses. Finally, the WRSP could result in the development of land uses that emit a smaller amount of TACs, such as dry cleaners, autobody shops, or other industrial uses. Similar sources of TACs could be developed in the Placer Vineyards, and other existing and proposed development in the area. None of these uses would be expected to exceed standards for TAC emissions by themselves.

Enron had proposed to construct a power plant on the site of the proposed Roseville Energy Park. A number of studies were completed for the Enron facilities, including extensive air quality analyses and health risk assessments. The health risk assessment determined that the proposed energy facility would have a cancer risk factor of approximately 0.33 in one million, a chronic health hazard index of 0.0031, and a maximum acute health hazard index of 0.087. Cancer risk of less than one in one million and a health hazard index of less than one are considered acceptable TAC levels for permitting purposes.[468] Similar studies have yet to be conducted for the proposed Roseville Energy Park, but it is expected to be much smaller than the Enron facility would have been in terms of operational energy output (150 MW compared to 900 MW). Therefore, the TAC levels should also be lower and the Roseville Energy Park would not be expected to generate TACs at levels that would exceed health standards.

Although individual sources of TACs may be less than the 10 in 1 million threshold, the combination of multiple sources that emit TACs in combination with other development within the region could expose receptors to TAC levels that exceed the 10 in 1 million threshold which would be cumulatively considerable. MM 4.4-7 requires that industrial uses within the WRSP submit a "permit to operate" to the Air District demonstrating how the facility would not exceed the 10 in 1 million TAC threshold. This measure would be adequate to address TAC emissions from Roseville sources, and no industrial uses are proposed adjacent to the WRSP in either the City or the County. Therefore, cumulative TAC levels should be similar to project-specific emissions, which would be reduced to a **less-than-significant** level by MM 4.4-7.

Noise

The cumulative context for noise depends on whether the source is mobile (e.g., traffic related) or stationary (e.g., stationary source related). Traffic noise from the SOI Amendment Area would result in noise both inside outside of the area. At the same time, the SOI Amendment Area would be subjected to traffic noise from other areas. Consequently, the cumulative context for traffic noise is regional. Traffic noise levels under buildout of the City's General Plan, as well as 2020 levels of development outside of

[468] Placer County Air Pollution Control District, *Placer County Air Pollution Control District Preliminary Determination of Compliance Roseville Energy Park, LLC*, July 8, 2002.

the City, are presented in Section 4.5, Noise, of this document. This cumulative analysis qualitatively considers additional traffic noise from development that is not included in the 2020 traffic model, which includes speculative projects.

Stationary source noise (e.g., industrial facilities, loading docks, sports facilities) and construction noise are relatively confined to the area in which they occur. Therefore, the cumulative context for these types of noise is the immediate vicinity of on-site sources.

Construction Noise

SOI Amendment Area

The full SOI Amendment Area is bordered by several potential County projects, including Placer Vineyards to the south, the De la Salle/AKT University project to the west, and Placer Ranch to the north. As previously discussed, it is unlikely that construction would be underway in the same area at the same time and in proximity to residences or other sensitive receptors. Furthermore, construction within the City would comply with the City's Noise Ordinance and would occur primarily during the day. For these reasons, SOI construction noise impact would not be cumulatively considerable and would result in a **less-than-significant** cumulative impact.

West Roseville Specific Plan

Noise impacts would result from the operation of construction equipment and from noise generated by vehicular traffic traveling to and from a construction site. The magnitude of the impact would depend on the type of construction activity, the noise level associated with each piece of construction equipment, the duration of construction activities, the presence or absence of noise barriers, and the distance between the source of the noise and receptors. Properties located adjacent to construction sites would be affected temporarily; therefore, short-term construction noise impacts are anticipated. WRSP residents could be affected by development in the Remainder Area, in particular, as well as construction of Placer Ranch and the potential University project to the west of the WRSP, if these projects are approved. There could be periods of time in which the residents of the WRSP could be subjected to construction noise from several on-site and off-site sources, such as the Remainder Area, Placer Ranch, or the University project to the west. However, it is unlikely that construction in these three areas would be close enough to a particular sensitive receptor to create a substantial combined noise level, particularly as the noise source would need to double in magnitude to achieve a noticeable effect (a 3 dB increase). Construction within the WRSP, the Remainder Area, and the Roseville Energy Park would comply with the City Noise Ordinance. As discussed earlier, the construction of any project that occurs within the City would be limited to the hours of 7:00 A.M. and 7:00 P.M. Monday through Friday and 8:00 A.M. to 8:00 P.M.

Saturday and Sunday. The County does not have a similar ordinance, but typically limits construction to daytime hours, similar to the City. Also, any periods in which more than one project was operating in close proximity to the same sensitive receptor would likely be very short, and would only occur during the hours mentioned above. For these reasons, WRSP construction noise would not be cumulatively considerable and is also considered a **less-than-significant** cumulative impact.

Stationary Source Noise

SOI Amendment

Neither the WRSP nor the Remainder Area would be exposed to, or generate, multiple sources of stationary noise that would be close enough to each other to generate a significant noise impact. Residential uses in the northern portion of the Remainder Area could be located in proximity to the Roseville Energy Park. However, the Remainder Area would be separated from the plant by Blue Oaks Boulevard, which would be 170 feet wide, as well as approximately 250 feet from the roadway to the energy park site itself. Given that the once proposed and much larger Enron plant would have generated acceptable noise levels at 400 feet from the facility, the Roseville Energy Park is not expected to create noise in excess of 60 dB L_{dn} at any location within the Remainder Area. Because neither the WRSP nor the Remainder Area would be expected to generate or be exposed to substantial cumulative noise from stationary sources, this cumulative impact is considered **less than significant**.

West Roseville Specific Plan

The proposed Roseville Energy Park would be a source of noise in the WRSP, which surrounds it on three sides. The proposed 150 MW plant is much smaller than the previously proposed Enron plant, which would have had a capacity of up to 900 MW. No noise analysis has been prepared at this time for the 150 MW facility. However, the noise from the 900 MW plant was anticipated to be 60 dB L_{dn}, the City's maximum acceptable noise level for residential areas at 400 feet from the plant. The 150 MW facility would generate much lower noise levels, which would cause the 60 dB L_{dn} contour to occur closer than 400 feet from the energy facility site.

The only other sources of noise in areas near the WRSP would be generated in schools, parks, or commercial areas in the Remainder Area or Placer Ranch, or possibly the University project to the west. Noise from these areas would not be additive because it would be unlikely that, for example, two commercial areas would be close enough to each other to substantially increase ambient noise levels.

For the above reasons, cumulative WRSP noise levels from stationary sources would be **less than significant**.

On-Site Traffic Noise

SOI Amendment Area

Development of the full SOI Amendment Area would result in on-site noise levels that could exceed City standards. Future development outside of the SOI Amendment Area would further contribute to traffic-related noise. MM 4.5-10 through MM 4.5-12 would ensure that noise barriers and setbacks are adequate to achieve City standards at residential areas in both the WRSP and the Remainder Area. However, it cannot be determined at this time whether these measures would maintain City standards if additional traffic noise is generated by potential projects in the vicinity of the SOI Amendment Area. Although the project's contribution would not be cumulatively considerable, noise caused by potential developments in the vicinity of the SOI would be a **significant and unavoidable** cumulative impact.

West Roseville Specific Plan

As discussed in Impact 4.5-8, several roadways adjacent to proposed residential areas in the WRSP, including Fiddyment Road, Pleasant Grove Boulevard, Blue Oaks Boulevard, and West Side Drive, would have noise levels that exceed 60 dB L_{dn}. Depending on the distance to residences in these locations, exterior and interior noise levels could exceed City standards under 2020 conditions. These noise levels could be further increased if Placer Parkway, Placer Vineyards, Placer Ranch, and/or the De la Salle/AKT University project to the west were developed because traffic from these potential projects could use WRSP roadways to access the regional network or to use commercial or other facilities in the WRSP area.

MM 4.11-11 requires an acoustic analysis demonstrating that a combination of setbacks, barriers, and building orientation can ensure that noise levels meet City standards where residential uses are located inside of the 60 dB L_{dn} noise level contours. Barriers alone would reduce noise levels by approximately 4 dB to 10 dB, depending on height, setback, and design. Such measures would be adequate to protect residential areas from unacceptable noise levels under 2020 conditions. However, because the exact intensity of uses and the amount of traffic that could be generated by projects in the County is unknown at this time, it cannot be determined whether noise levels could increase beyond the levels identified for the 2020 condition (and exceed City standards) even with mitigation in place. Once barriers and setbacks are in place within the WRSP, they are unlikely to be altered, even if future noise analyses for other potential projects indicate that noise standards could be exceeded. Therefore, future residents could be exposed to unacceptable levels, particularly along roadways that already experience noise levels approaching 70 dB L_{dn} because barriers typically reduce noise by a maximum of 10 dB L_{dn}. Therefore, the

effects of cumulative development on noise levels within the WRSP are considered **significant and unavoidable**, although the project's contribution would not be cumulatively considerable.

Off-Site Traffic Noise

SOI Amendment Area

Development of the full SOI Amendment would increase the 60 dB L_{dn} contour beyond the extent projected for the WRSP alone. Other potential development would further increase this noise contour. As discussed above, because the exact intensity of uses and the amount of traffic that could be generated by projects in the County is unknown at this time, it cannot be determined whether noise levels could increase beyond the levels identified for the 2020 condition (and exceed City standards) even with mitigation in place. If traffic noise increased by more than 3 dB compared to the baseline condition (2020 with buildout of the City's General Plan), and mitigation is not feasible to maintain acceptable residential exterior noise levels, future residents could be exposed to unacceptable levels. This would be considered a **significant and unavoidable** cumulative impact.

West Roseville Specific Plan

As discussed in Impact 4.5-9, the WRSP would increase off-site noise levels by as much as 3 dB under 2020 conditions. Although the 60 dB L_{dn} contour would expand by 1 foot, existing residential areas would still be exposed to acceptable noise levels. Traffic noise increases beyond 2020 and/or as the result of potential development projects, such as Placer Ranch, would further increase the 60 dB L_{dn} noise contour within the City. As discussed above, the amount of traffic and resulting traffic noise resulting from projects that have not yet been approved, or in some cases formally proposed, cannot be determined. If cumulative noise levels increase by more than 3 dB, feasible mitigation may be available to provide enough of a noise reduction to return the noise contours to the level associated with buildout of the current General Plan and 2020 development. However, because the precise levels of noise and the potential impacts to sensitive receptors to noise are unknown at this time, as well as the degree to which mitigation could reduce any significant noise impacts, this is considered a **significant and unavoidable** cumulative impact.

Geology, Soils, and Seismicity

SOI Amendment/West Roseville Specific Plan

The context for evaluation of potential cumulative impacts on geology, soils, and seismicity is based on development in the region, including projected buildout under the City of Roseville's adopted General Plan and approved or potential projects in the City, as well as additional foreseeable growth in the

project area to the north (Sunset Industrial Plan and Placer Ranch), south (Placer Vineyards and north Sacramento County), and west (potential De la Salle/AKT University site and south Sutter County). However, the geologic analysis of cumulative impacts is generally site-specific, rather than cumulative in nature, because each development site has unique geologic considerations that would be subject to site development and construction standards.

Cumulative development in the Roseville area, including the WRSP and the Remainder Area, western Placer County, and northern Sacramento County would increase the number of people living, working and traveling through the region who would be exposed to seismic hazards or hazards associated with soil constraints (e.g., expansive soils). Although seismic risk in the City of Roseville is low, the potential effects from a large seismic event from regional faults cannot be dismissed. Soil conditions that could affect development would be site-specific. The magnitude of these cumulative seismic and soils impacts would be mitigated to a less-than-significant level with implementation of Uniform Building Code requirements that would be incorporated into project design and subject to review in conjunction with issuance of building permits. The project's contribution to these cumulative impacts would not be considerable because all project structures would similarly comply with the Uniform Building Code. A **less-than-significant impact** would result.

Cumulative development in the Roseville area, including the WRSP and Remainder Area, would involve grading activities that would remove surface vegetation, alter topography, and potentially expose soils to greater erosion potential. The magnitude of this impact would be greatest during construction, particularly if development were to occur simultaneously with development immediately adjacent to the SOI Amendment Area to the north, east, and south. However, implementation of Placer County and City of Roseville grading standards and use of State General Construction Activity Permit-mandated construction BMPs during construction would reduce this cumulative impact to a less-than-significant level. The project's contribution would not be cumulatively considerable, and a **less-than-significant** impact would result. Moreover, upon development of the WRSP and Remainder Area and other projects where undeveloped land is converted to urban uses, exposed soil would be covered with impervious surfaces that would reduce erosion potential over the long-term.

Cumulative development in the Roseville area, particularly in areas where Prime Farmland would be converted to urban uses, would result in the loss of topsoil. The SOI Amendment Area's contribution to loss of topsoil would not be cumulatively considerable because this area does not have the potential to produce significant amounts of erodible topsoil. A **less-than-significant** impact would result.

Biological Resources

The cumulative context for the evaluation of impacts on biological resources is regional development, particularly western Placer County, which contains habitat very similar to the SOI Amendment Area. (For purposes of this biological resources discussion, the cumulative analysis for the WRSP Area is provided before the cumulative analysis for the SOI Amendment Area because it provides important background information applicable to both areas.)

West Roseville Specific Plan

The WRSP would contribute to the urbanization of western Placer County. Over the last few decades, tens of thousands of acres of grasslands have been developed or designated for development in western Placer County, particularly in and around the cities of Roseville, Lincoln, and Rocklin. Development has also moved north into grasslands in Sacramento County. Future development would result in the further decline of native plant communities, including native oak woodlands and habitat for plant and wildlife species native to the region. The proximity of urban development would also contribute to the distribution of non-native plant and wildlife species, which would further degrade the habitat and available niches for native species in the surrounding region.

According to the US Fish and Wildlife Service, Placer County contains almost 35 percent of all vernal pools within the southeastern Sacramento vernal pool region. As of 1994, an estimated 48,000 acres of vernal pool grassland remained in Placer County as a whole, although much of this acreage has been lost to development.[469] In 1999, Jeff Glazner, a biologist, produced the Placer County Vernal Pool and Grassland Maps for Placer County (these maps are unpublished) that indicates there are 20,676 acres of vernal pool grasslands remaining in western Placer County. The proposed WRSP could result in the loss of approximately 2,200 of these acres (i.e., approximately 10 percent) of annual grasslands. Implementation of the WRSP is anticipated to result in the total loss of 32.78 acres of wetland habitat. Of this, direct losses account for a total of 23.21 acres of wetlands and "other waters" of the U.S., including 13.80 acres of vernal pools, 3.29 acres of vernal swales, 4.17 acres of wet swales, 1.33 acres of seasonal wetlands, and 0.62 acre of emergent marsh. Indirect impacts to wetlands account for an additional 8.83 acres of vernal pool habitat and 0.74 acre of vernal swale habitat. These wetlands are located in the central portion of the last large, contiguous vernal pool grasslands in Placer County.[470]

[469] Jan C. Knight, Chief, Endangered Species Division, US Fish and Wildlife Service, written communication to Kathy Pease, September 13, 2002.
[470] Ibid.

A review of the Glazner maps show that concentrations of vernal pool complexes are scattered throughout the western portion of the County. According to these maps, the WRSP area is at the edge of this area and contains only a small portion of the complexes that are present in the western portion of the County. Additionally, the WRSP is immediately adjacent to urban development and would not result in significant fragmentation of these resources when examined from a Countywide perspective.

Other development that would convert vernal pool grasslands to urban development could include Placer Ranch (approximately 2,000 acres) and other development in the Sunset Industrial Area, the potential De la Salle/AKT University to the west of the WRSP, and Placer Vineyards, which is composed primarily of cropland (although several hundred acres of grasslands and approximately 50 acres of wetlands are present).

This situation is similar for other biological resources that are known to occur in the WRSP area. Based upon an examination of mapped (GIS) records provided in the State's California Natural Diversity Database (CNDDB) and aerial photography of the region, potential habitat for Swainson's hawk, burrowing owl, and other species addressed in this document is widely distributed within Placer and adjacent counties. The WRSP would result in the permanent loss of habitat for these species that is present within the development boundaries. When examined from a regional perspective, approximately 2,200 acres of contiguous available grassland habitat available out of 20,000+ acres of grassland habitat in western Placer County alone would be affected, which represents a small percentage. Other potential Placer County projects (e.g., Placer Ranch, De la Salle/AKT University to the west) would likely convert another several thousand acres of grassland foraging habitat and Placer Vineyards could convert 2,200 acres of grassland and cropland, both of which provide foraging habitat. In addition, the Reason Farms retention facility could fallow up to 1,000 acres of land. With this fallowing, the habitat value would change from irrigated rice fields to grasslands, a lower quality habitat for foraging raptors.

In May 2000, the City and the U.S. Fish and Wildlife Service (USFWS) entered into a Memorandum of Understanding (MOU) to prepare a Habitat Conservation Plan (HCP) or equivalent document to minimize the incidental take of vernal pool species resulting from future growth associated with the City's soon-to-be-completed PGWWTP. As a result of negotiations with the USFWS, the Service has determined that the City does not need to prepare a HCP in lieu of purchasing land for an off-site preservation program and that future projects could proceed going through the Clean Water Act Section 404 and Federal Endangered Species Act Section 7 consultation process to meet the intent of the MOU. Mitigation ratios for specific projects would be subject to the most current CDFG and USFWS policies.

Mitigation measures are discussed in detail in Chapter 4.7 to reduce the severity of significant project-related impacts to less-than-significant levels. However, even with these mitigation measures, a substantial change in habitat conditions (i.e., loss of grassland habitat) would result as a consequence of cumulative development in the region, transitioning the region into an urban environment. The amount of undeveloped habitat available for wildlife use decreases as development occurs and as the amount of habitat decreases, wildlife species that are incompatible with urban environment will be displaced.

Cumulative development within the region would result in the loss of grasslands, wetlands, vernal pool habitat, and oak trees. The loss of this habitat would also result in impacts to special status plant and animal species. These regional impacts would be considered **significant and unavoidable**. However, the project's contribution to this impact would not be cumulatively considerable because the loss of wetlands, grasslands, foraging habitat, and oak trees, and any associated impacts to special status species, are fully mitigated at at least one-to-one replacement ratio approved by the CDFG and USFWS. Through conservation, restoration, and/or preservation, these habitats will remain in perpetuity, within southwestern Placer County. Therefore, biological resources impacts would be considered **less than significant**.

SOI Amendment Area

Development of the full SOI Amendment Area would contribute to the conversion of natural habitat in western Placer County to urban uses. Under the full SOI Amendment, total grassland area lost could exceed 4,000 acres (approximately 19 percent of this habitat type in western Placer County). This would include the potential loss of an additional approximately 50 acres of wetlands from within the Remainder Area. In addition, development of the Remainder Area could require the City's participation in the Sacramento River Diversion project, which could affect terrestrial species and habitat, particularly during construction, as well as fisheries during constriction and operation. Impacts to grasslands and wetlands would produce similar cumulative impacts identical to those identified for the WRSP Area. The SOI Amendment's contribution to the cumulative loss of biological resources and habitat would be cumulatively considerable and would also result in a **significant and unavoidable** impact, even with implementation of mitigation identified in Section 4.7 of this document.

Cultural Resources

The cumulative context for the evaluation of potential cumulative impacts on cultural resources is the City of Roseville and western Placer County. (For purposes of this cultural resources discussion, the cumulative analysis for the WRSP Area is provided before the cumulative analysis for the SOI Amendment Area because it provides important background information to both areas.)

West Roseville Specific Plan

Development in the region could result in the damage or destruction of known archaeological and historical resources, as well as any existing undiscovered subsurface sites artifact. Archival data reveals that the Roseville vicinity contains a relatively wide array of both prehistoric and historic cultural resources. Although no evidence of prehistoric resources was discovered during field surveys of the WRSP area, food stations, artifacts, and other features have been found near the cities of Lincoln and Rocklin. Historic resources and prehistoric sites have been recorded in the Placer Vineyards site and could occur elsewhere in South Placer County.

Numerous laws, regulations, and statutes, on both the federal and state levels, seek to protect and target the management of cultural resources. These would apply to development within and outside the City. In addition, the Roseville General Plan provides local policies that safeguard cultural resources from unnecessary impacts. These policies include inventory and evaluation processes and require consultation with qualified archaeologists in the event that previously undiscovered cultural materials are accidentally exposed. MM 4.12-1 would reduce the WRSP contributions to cumulative cultural resources impacts in the City of Roseville by ensuring that appropriate surveys are conducted to identify cultural resources; that cultural resources discovered within the WRSP area are properly recorded and handled; and that known existing resources in the WRSP area are appropriately recorded and preserved, when feasible.

The WRSP contains the Fiddyment Ranch, a historically significant ranch complex. MM 4.8-4 through MM 4.8-6 call for the preservation, if possible, or appropriate reuse and recordation of cultural resources. While the house and some other buildings are planned to be retained, the Fiddyment Ranch would no longer be used as a ranch, and the surrounding area would be developed, thereby altering the ranch's context. The loss of the Fiddyment Ranch would contribute to the cumulative loss of large homesteads, farms, and ranches in South Placer, which also includes the Whitney Ranch in the Lincoln/Rocklin area.

Development of the WRSP could result in the discovery of paleontological resources. Other development throughout south Placer County could also encounter such resources. MM 4.12-10 would ensure that paleontological resources, if discovered during project development, would be appropriately handled so that information regarding the resource would not be lost.

Due to the rabid urbanization of the area and the associated loss of sensitive cultural resources, a significant and unavoidable impact would result. While implementation of the General Plan's policies and the mitigation measures shown in Section 4.12 would reduce the potential for significant cumulative impacts on cultural resources to a less than significant level, because the final disposition of Fiddyment

Ranch is not known at this time, the loss of the historic Fiddyment Ranch due to the WRSP would contribute to the cumulative loss of historic resources in the Western Placer region. Therefore, the WRSP's contribution to the cumulative impact would be cumulatively considerable and a **significant and unavoidable** impact would result.

SOI Amendment

Development of the full SOI Amendment Area could adversely affect cultural resources through the partial or full destruction of the Fiddyment Ranch complex and/or the inadvertent destruction of or damage to unknown paleontological or archaeological resources. The loss of such resources would contribute to the regional loss of cultural resources. For example, several prehistoric sites and historic resources have been recorded in the Placer Vineyards site. Similar resources could be located to the north and west of the SOI Amendment Area as well. While MM 4.12-1 through MM 4.12-13 would minimize the potential for damage to artifacts and/or their loss in both the WRSP and Remainder Area to a less than significant level, the conversion of Fiddyment Ranch and the surrounding area to urban uses would substantially alter the context of this significant historic resource, thereby contributing to the cumulative loss of historic resources throughout Placer County. This is considered a significant and unavoidable cumulative impact and the project's contribution would be cumulatively considerable and would also be **significant and unavoidable**.

Hazardous Materials and Public Safety

The cumulative scenario for hazardous materials and public safety is the City of Roseville.

SOI Amendment Area/West Roseville Specific Plan

Increased Use of Hazardous Materials

The WRSP and SOI Amendment, in conjunction with cumulative development in the City, would include areas designated for commercial uses. Cumulative development would also include continued operation or development of new light-industrial uses and/or public/quasi-public facilities (e.g., PGWWTP and the Roseville Energy Park). These types of development would increase the use of hazardous materials within the area, resulting in potential health and safety effects related to hazardous materials use. For the most part, potential impacts associated with WRSP development would be confined to the light industrial, public facilities, or commercial areas. Hazardous materials incidents would typically be site-specific and would involve accidental spills or inadvertent releases. Associated health and safety risks would generally be limited to those individuals using the materials or to persons in the immediate vicinity of the materials. Thus, the project's contribution to increased use of hazardous

materials, and associated exposure risks, would not be cumulatively considerable. Airborne toxic air contaminant emissions from commercial and industrial sources are addressed in the cumulative analysis for air quality. Implementation of applicable hazardous materials management laws and regulations adopted at the federal, State, and local level would ensure cumulative impacts related to hazardous materials use remain less than significant. The project's contribution to this impact would not be cumulatively considerable, and a **less-than-significant** impact would result.

Exposure Due to Increased Hazardous Materials Transportation

Development in the City of Roseville, including the WRSP and SOI Amendment, would result in a cumulatively considerable increase in hazardous materials transportation in the area, which could expose greater numbers of people to increased risks in the event of an inadvertent release or spill. Stringent regulatory requirements apply to the common carriers that would handle the deliveries and transport of hazardous materials to and from the project area. While these regulations do not eliminate the potential for accidents and resulting spills, they would reduce the frequency of occurrences and would limit the number people that could be exposed. Implementation of applicable laws and regulations would ensure that cumulative impacts associated with the transport of hazardous materials within the region such that this activity would remain less than significant. The project's contribution to this impact would not be cumulatively considerable, and a **less-than-significant** impact would result.

Exposure Due to Proximity of Existing or Proposed Facilities Using Hazardous Materials or Electromagnetic Fields (EMF) from High-Voltage Transmission Lines

Development in the City of Roseville, including the WRSP and SOI Amendment, would result in an increase in development of land uses that could be adjacent to public facilities (e.g., wastewater treatment plants, energy facilities), industrial operations, or high-voltage power lines. As development occurs, a greater number of people could be exposed to potential hazards associated with chemical use or electromagnetic fields (EMFs). The risk associated with each type of potential source would be site-specific and would generally be limited to the adjacent development. In some cases, a buffer or setback would be required. Operators of public facilities and industrial operations are required to comply with specific laws and regulations adopted to minimize potential risks to the public. The City of Roseville has adopted a prudent avoidance policy in siting land uses in the vicinity of high-voltage transmission lines. Because such hazards would be site-specific and would not combine with similar hazards elsewhere, effects associated with the project would not be cumulatively considerable. Implementation of applicable laws and regulations and land use planning policies would ensure cumulative impacts associated with siting of developed uses adjacent to potential hazards remain less than significant. The project's

contribution to this impact would not be cumulatively considerable, and a **less-than-significant** impact would result.

Exposure to Potential Contaminants in Soil or Groundwater from Past Uses

For any projects in the City of Roseville that would involve development or redevelopment of an existing site in which soil or groundwater contamination may have occurred, the potential exists for release of hazardous materials during construction and/or remediation of those sites. For individuals not involved in construction activities, the greatest potential source of exposure to contaminants would be airborne emissions, primarily through construction-generated dust. Other potential pathways, such as direct contact with contaminated soils or groundwater, would not pose as great a risk to the public because such exposure scenarios would typically be confined to the construction zones. Assuming that site-specific risk management controls are implemented and compliance with applicable laws and regulations pertaining to site cleanup and hazardous materials management is achieved at all other locations, any soil or water contamination identified in the WRSP or Remainder Area would not result in any significant cumulative impacts. Moreover, an individual who is near the construction zone of one source would not likely be exposed to maximum levels off-site from another source. The project's contribution, therefore, is not cumulatively considerable. Implementation of applicable hazardous materials management laws and regulations adopted at the federal, State, and local level would ensure cumulative impacts related to development of known or potentially contaminated sites remains less than significant. The project's contribution to this impact would not be cumulatively considerable, and a **less-than-significant** impact would result.

Exposure of the Public to Areas Irrigated with Recycled Water

As development continues in the City of Roseville, it is anticipated that new areas accessible to the public (e.g., parks, recreation fields, landscape medians) would continue to be irrigated with recycled water from the Dry Creek WWTP or PGWWTP as part of the overall water supply strategy for the City. Recycled water used for areas accessible to the public must be treated to adopted standards and applied in accordance with State and City regulations. Development of the WRSP and SOI Amendment Area, in combination with development in the City of Roseville and potential future projects in the region would increase the number of people who could use areas irrigated with recycled water. Recycled water applied in the WRSP and Remainder Areas would be obtained from the same sources, and all treatment methods would continue to comply with adopted standards established by laws and regulations. Although new areas would be irrigated, there would be no direct correlation between the use of recycled water and the number of people working, residing, or visiting areas irrigated with recycled water. Therefore, the project's contribution to impacts associated with the use of recycled water would not be cumulatively

considerable. Implementation of applicable recycled water laws and regulations adopted at the State and City level would ensure cumulative impacts related to recycled water use remains less than significant. The project's contribution to this impact would not be cumulatively considerable, and a **less-than-significant** impact would result.

Public Services

The cumulative context for public services is the service area of each service provider. For police, fire, libraries, and parks, services are provided by the City of Roseville; therefore, buildout of the City in year 2020 is the cumulative context. For schools, the service area of each district is the cumulative context.

Police Services

SOI Amendment Area

Police services are provided based on established service standards and goals reflected in the General Plan. The population in 2020 is expected to be 127,714[471] for the City of Roseville, not including the SOI Amendment Area. Pursuant to the standard of 1.2 officers per 1,000 population, 153 officers would be needed to serve the City's population. According to the General Plan Final EIR, the additional development within the existing City limits includes a balance of commercial, industrial, and residential development, which should adequately fund the provision of increased police personnel. Police protection services would continue to be adequately funded and provided based on evolving service goals. Additional demand on police services could also result from development in the nearby County (e.g., Placer Ranch, Placer Vineyards). Because the City ensures adequate police staffing levels to protect its population, the cumulative impact would be less than significant.

Development of the SOI Amendment Area would contribute the need for 47.5 additional officers, resulting in the need for approximately 200 police officers to serve the City's population. The project's contribution to the demand for police officers would be cumulatively considerable. However, implementation of MM 4.10-2(a), which requires that additional police officers be added to the Roseville Police Department (RPD) to serve the City's population, would reduce the SOI Amendment Area contribution to cumulative impacts. This would result in a less-than-significant impact**.**

In addition to the need for more officers, expansion of police headquarters and the RPD's communication systems would be necessary to serve the additional officers and the population of Roseville. Implementation of MM 4.10-2(b) and MM 4.10-2(c), which requires these expansions, would also reduce

[471] DKS Associates, 2002; based on 50,480 dwelling units, and 2.53 residents per dwelling unit.

the cumulative contribution of the SOI Amendment Area by ensuring the provision of adequate facilities. This would result in a less-than-significant impact.

The expansion of existing police facilities or construction of new facilities could result in impacts on the physical environment in certain issue areas (i.e. biological resources, air quality, water quality); however, these impacts are inherently site-specific, rather than cumulative in nature, because impacts would occur on relatively small parcels and cumulative development, for this reason, would not necessitate the construction or expansion of numerous police facilities. In addition, environmental review would be completed on a site-specific basis prior to any construction activities and appropriate mitigation would be implemented. For these reasons, it would be speculative to identify the level of significance of cumulative impacts, or the project's contribution to those impacts.

West Roseville Specific Plan

The cumulative analysis for the WRSP Area is identical to the cumulative analysis for the SOI Amendment Area, except implementation of the WRSP would require an additional 25 police officers and related support staff and equipment, resulting in the need for approximately 178 offices to serve the City's population.

With the implementation of existing policies and MM 4.10-1, police protection services would continue to be adequately funded and provided based on evolving service goals. Therefore, the WRSP's contribution to the cumulative impact on police services would be **less than significant**.

Fire Protection

Similar to police services, fire services are provided based on established service standards and goals. Cumulative development within the City would be subject to these standards. The population in 2020 is expected to be 127,714[472] for the City of Roseville without development of the SOI Amendment Area. Additional stations and fire fighters would be required to continue to meet the response time standard of 4 minutes in all areas of the City.

SOI Amendment Area

Development of the SOI Amendment Area would add a total of 39,540 residents to the City, and development of the WRSP would add 20,810 residents to the City of Roseville. This increased population, in combination with other development in the City and County, would increase demand for fire

[472] DKS Associates, 2002; based on 50,480 dwelling unites and 2.53 residents per dwelling unit.

protection services and could reduce response times due to increased traffic. In addition to the station proposed in the WRSP area, another fire station could be required in the Remainder Area to serve development. The addition of stations, as required under MM 4.10-3, would ensure that the Roseville Fire Department (RFD) could adequately serve development within the SOI Amendment Area. However, in order for the RFD to estimate response times, it would need to run the Department's model, as required by MM 4.10-3. The model requires a land use plan, which is not available for the Remainder Area at this time. The model will indicate the appropriate locations for fire stations in the City to ensure that the response time standard is met for all areas of the City. Given current policies and mitigation measures, the contribution of both the WRSP and SOI Amendment Area to the demand for fire protection services would not be cumulatively considerable and is considered a **less-than-significant** cumulative impact.

Schools

SOI Amendment Area

Buildout of the City in combination with other development in South Placer County would increase the demand on the school districts serving the SOI Amendment Area (Roseville City School District [RCSD], Roseville Joint Union High School District [RJUHSD], and Center Unified School District [CUSD]). Existing and planned schools would not have the capacity to serve all future development so that additional school sites will be required as new development is planned and built. School fees would be collected to fund construction of new schools, as required and allowed by State law. Development of the SOI Amendment Area would contribute 4,224 students in the RCSD, 1,957 students in the RJUHSD, and 3,393 students in the CUSD. While school sites would be dedicated in the WRSP that could serve some of the students generated in the entire SOI Amendment Area, additional school sites would need to be dedicated in the Remainder Area to serve all of the students generated by development of the entire SOI Amendment Area. Because no land use plans have been prepared for the Remainder Area, the number and location of schools in that area is unknown. However, given current school capacities, the addition of any more students would exceed planned capacity. MM 4.10-7 requires that school sites be identified as needed in proposed specific plans in the Remainder Area. New residential development would be required to pay school impact fees to the school districts to offset the capital costs of constructing new schools, which would ensure that cumulative impacts are less-than-significant. The provision of school sites and payment of applicable fees, consistent with State law and City (and County) policies would ensure that the SOI Amendment contribution to cumulative impacts on the local school districts is not cumulatively considerable. This would result in a **less-than-significant** impact.

West Roseville Specific Plan

The development of the WRSP, in conjunction with other planned residential development in the City of Roseville and South Placer County, would increase the demand for school services in the RJUHSD and RCSD. Existing schools in these districts would not be able to accommodate the projected future population at their current capacities. Development of the WRSP would contribute 2,815 students to the RCSD and 1,315 students to the RJUHSD. The WRSP would designate sites for four elementary and one intermediate school within the WRSP area and one RJUHSD high school. WRSP development would also contribute funding for the construction of schools.

New residential development within the City of Roseville and Placer County would be required to pay school impact fees to the school districts to offset the capital costs of constructing new schools, consistent with State law and City (and County) policies. The provision of school sites and payment of applicable fees would ensure that the WRSP contribution to cumulative impacts on the local school districts is not cumulatively considerable. This would result in a **less-than-significant** impact.

Libraries

SOI Amendment Area

As discussed in Section 4.10, the City's library system lacks the necessary resources to provide what library administrators consider adequate circulation and staffing for existing libraries. By 2020, there will be approximately 127,714 residents in Roseville.[473] Based on the service standard of one library branch per 15,000 to 20,000 residents, approximately seven library branches in total would be needed throughout the City by 2020. There are currently two public libraries that serve the City. Development within the City and SOI Amendment Area would result in growth that would place demand on existing library facilities, further reducing their ability to provide adequate service.

Development of the SOI Amendment Area would result in the addition of 39,540 residents to the City. When combined with the population projections for 2020, there would be approximately 167,254 residents in the City. This would result in the need for approximately ten library branches citywide, including two in the SOI Amendment Area. Nearby development in the County, such as Placer Ranch and Placer Vineyards, could also increase use of the City's library facilities. Implementation of MM 4.10-9 and MM 4.10-10 would ensure that library sites are dedicated within the SOI Amendment Area or that existing facilities are expanded to accommodate new project residents. Therefore, the SOI Amendment's

[473] DKS Associates, 2002; based on 50,480 dwelling units and 2.53 residents per dwelling unit.

contribution to cumulative demand for library services would not be cumulatively considerable and a **less-than-significant** impact would result.

West Roseville Specific Plan

Implementation of the WRSP would add approximately 20,810 people to the City of Roseville, resulting in the need for one additional library branch and the citywide need of eight library branches to adequately serve the City's population. Implementation of MM 4.10-9 would result in the siting or expansion of a library branch within or near the WRSP to serve City residents. Combined with other growth in the City, the additional library space would alleviate some of the demand on citywide library facilities. Therefore, the WRSP's contribution to the demand for library services would not be cumulatively considerable and the impact would be **less than significant**.

Parks and Recreation

As Roseville continues to grow and eliminate the surrounding open spaces, there will be a greater need to create parklands and open spaces within the City. The population in 2020 is expected to be 127,714[474] for the City of Roseville, not including the SOI Amendment Area. The City has a standard of 3 acres per 1,000 residents for: (1) neighborhood/community parks; (2) Citywide parks; and (3) open space/passive parks. This corresponds to the need for approximately 383 acres each of neighborhood/community parks, Citywide parks, and open space/passive parks by 2020 (without the additional demand for parks created by development in the SOI Amendment Area). Development in the County would also create a demand for parks. The County requires only five acres of improved parkland per 1,000 residents, compared to the City's combined requirement of 9 acres per 1,000 residents; therefore, some County residents may use City facilities.

SOI Amendment Area

Development of the SOI Amendment Area would add approximately 39,540 residents to the City, requiring approximately 356 acres of parkland, consisting of approximately 118 acres each of neighborhood/community parks, Citywide parks, and open space/passive parks. Therefore, by 2020, with the development of the SOI Amendment Area, approximately 1,505 acres of parkland would be needed throughout the City. The City's General Plan Policy PA-1, which requires the dedication of 9 acres of parkland per 1,000 residents, is a stricter requirement that the State's Quimby Act, or the County's standard, which requires only 5 acres of parkland per 1,000 residents. Compliance with the City's parkland standard would ensure that enough parkland is set aside within the City to serve its residents.

[474] DKS Associates, 2002; based on 50,480 dwelling units and 2.53 residents per dwelling unit.

Payment of the Neighborhood and Community Park Fee and the City-Wide Park Fee would continue to be collected from all residential units developed in the City. The applicants and residents of future projects in the SOI Amendment Area would be required to dedicate land and to pay park development fees. With the payment of the fees and the implementation of the General Plan policies, the SOI Amendment contribution to cumulative demand for parks and recreation facilities would not be cumulatively considerable and would result in a **less than significant** impact.

West Roseville Specific Plan

As discussed under the SOI Amendment Area, a less-than-significant cumulative impact would occur with respect to parks and recreation because the City's Standards for the provision of adequate park facilities is less than either the State or County standards. The WRSP would add approximately 20,810 residents, requiring approximately 187 acres of new parks in total, with 62 acres each of neighborhood/community parks, Citywide parks, and open space/passive parks. Therefore, by 2020, with the development of the WRSP area, approximately 1,337 acres of parkland would be needed in the City. The WRSP alone includes approximately 939.6 acres of open space and parkland for use by City residents, which greatly exceeds the City's park requirement. Therefore, the WRSP would not considerably contribute to the cumulative demand for parks and recreational facilities, and the impact would be **less than significant**.

Public Utilities

The project-level analysis of impacts on certain public utilities, including potable water supply, recycled water, wastewater collection and treatment, and solid waste disposal, considers buildout of the City's General Plan, and other planning efforts through buildout (e.g. *Roseville Regional Wastewater Service Area Master Plan [WWMP]),* as well as development proposed in the SOI Amendment area. Therefore, while the project-level analysis for the utilities mentioned above considers conditions at buildout of the City's General Plan and other planning efforts, any proposed and anticipated development that occurs outside of the City's boundaries or WWMP service area must also be considered in the cumulative analysis.

Water Supply

Water Supply, Distribution, and Storage

The cumulative analysis for water supply, distribution, and storage considers the potential environmental effects of supplying water to the project in addition to regional water demands generated in Placer County and Sacramento County under the provisions of Water Forum Agreement (WFA). The

WFA provides a framework for providing surface water and groundwater supplies to the region through the year 2030.

SOI Amendment Area

A portion of the proposed water supplies provided to the region pursuant to the WFA would be obtained from the American River through contracts subject to WFA requirements. Deliveries from the American River, which provides a source of supply allowed by the WFA, include a component of water that is delivered to Central Valley Project (CVP) customers, including the City of Roseville, San Juan Water District, Placer County Water Agency, and others.

Under the cumulative without project conditions (or "future" conditions), American River deliveries would be increased to regional water purveyors who participated in the WFA (in this instance, American River deliveries include all deliveries to purveyors receiving water from the American River and waters delivered from the Sacramento River in lieu of the American River). Therefore, water deliveries made under the WFA could increase to the maximum limits specified in the WFA if: (1) all agreements are negotiated as planned; (2) all of the water purveyors seeking diversions obtain all of the necessary federal and state approvals; and (3) all of the necessary facilities are constructed.

As discussed in Subsection 4.11.2.1, Water Supply – Environmental Setting, an EIR was prepared for the Water Forum Agreement (WFA EIR) that addresses impacts and mitigation measures resulting from implementation of the water supply program outlined in the WFA. The findings of that EIR, and the accompanied Water Forum Action Plan, outlined a program whereby water delivery could be supplied to area purveyors through the year 2030, provided that a permanent pumping plant is constructed at Auburn (North Fork American River) and additional Sacramento River diversion facilities are constructed. While the specific construction and operational details of the proposed Sacramento River Diversion project were not evaluated in the WFA EIR, a diversion from the Sacramento River was included in the hydrologic modeling in the EIR for purposes of identifying potential cumulative environmental impacts for wet/average, drier, and driest years for year 2030.[475]

The WFA EIR listed the flow-related environmental impacts that could occur when implementing water diversions under the WFA and concluded that there was the possibility for environmental impacts in the following areas: groundwater resources, water supply, water quality, fisheries resources and aquatic habitat, flood control, hydropower supply, vegetation and wildlife, recreation, land use and growth

[475] Sacramento City-County Office of Metropolitan Water Planning, Water Forum Proposal EIR, Chapter 3, Project Description, Table 3-1a and Section 4.1, Modeling Assumptions, Table 4.1-2.

inducement, aesthetics, cultural resources, and soils and geology. While mitigation measures were developed, some impacts remained significant even after the application of these feasible mitigation measures. The following presents the applicable WFP EIR impacts by their respective level of significance, which represents the impacts that would occur as a result of cumulative development in the region, including buildout of the City of Roseville pursuant to its existing General Plan, full development of the SOI Amendment Area and development of the cumulative projects and/or development levels identified in Section 5.5.2 of this document. [476]

WFA Less-than-Significant Impacts (After Mitigation)

Groundwater Resources

- Continued lowering of groundwater
- Movement of groundwater contaminants
- Land subsidence from aquifer draw down

Water Quality

- Seasonal changes to water quality in Folsom Reservoir, Lake Natoma and the Lower American River

Fisheries Resources and Aquatic Habitat

- Impacts to Folsom Reservoir's coldwater fisheries
- Impacts to Lake Natoma's coldwater and warmwater fisheries
- Temperature impacts to Nimbus fish hatchery operations and fish production
- Lower American River Steelhead
- Flow- and temperature-related impact to the American shad (May and June)
- Flow- and temperature-related impact to the Striped Bass Sport Fishery (May–June)
- Impacts to Shasta Reservoir's coldwater and warm-water fisheries
- Impacts to Trinity Reservoir's coldwater and warm-water fisheries
- Impacts to Keswick Reservoir Fisheries
- Flow-related impacts to Sacramento River fisheries
- Temperature-related impacts to Sacramento River fisheries resources
- Delta fish populations

[476] City-County Office of Metropolitan Water Planning, Water Forum Proposal Draft EIR (SCH #95082041), January 1999, Table 2-1.

Flood Control

- Ability to meet flood control diagrams of Central Valley Project (CVP)/State Water Project (SWP) Reservoirs
- Increased stress on Lower American River flood control structures
- Increased exposure to flood hazards
- Substantial change in floodplain characteristics
- Changes in river channel geometry or gradients leading to changes in bank erosion, aggradation, segradation, or meander processes

Hydropower Supply

- CVP hydropower capacity and generation
- Increased energy requirements for diverters pumping from Folsom Reservoir. (This impact was found to have an economically significant impact after mitigation.)

Vegetation and Wildlife

- Lower American River riparian vegetation and backwater ponds
- Vegetation associated with reservoirs
- Vegetation associated with the Upper Sacramento River
- Vegetation associated with the Lower Sacramento River and the Delta
- Special-status species dependent on Lower American River backwater pond/marsh habitats
- Elderberry shrubs and Valley Elderberry Longhorn Beetle
- Sacramento-San Joaquin Delta habitats of special-status species (non-fish)

Recreation

- Lake Natoma recreation opportunities
- Shasta Lake recreational opportunities
- Trinity Reservoir recreation opportunities
- Recreation opportunities on Whiskeytown and Keswick Reservoirs
- Impacts on the Upper Sacramento River
- Lower Sacramento River recreation opportunities
- Delta recreation opportunities
- Consistency with the American River Parkway plan
- Consistency with the Lower American River's recreational river designations

Land Use and Growth-Inducing Impacts

- Land use impacts on direct and indirect effect study areas
- Consistency with General Plan
- Consistency with General Plan water supply and conservation policies

Aesthetics

- Aesthetic value of the Lower American River
- Aesthetic value of the Upper and Lower Sacramento River and Sacramento-San Joaquin Delta
- Aesthetic value of Lake Natoma, Whiskeytown, and Keswick Reservoirs
- Aesthetic value of Folsom, Trinity and Shasta Reservoirs

Cultural Resources

- Effect of varying flows/river stage on cultural resources along the Lower American River bank near Nimbus Dam
- Effect of varying flows/river stage on cultural resources along the Lower American River bank near the mouth
- Effect of varying flows/river stage on cultural resources along the Lower American River near Freeport

Soils and Geology

- Changes in geologic substructures
- Exposure to major geologic hazards
- Increased soil erosion by wind or water
- Loss of soil cover

Various forms of mitigation were successful at reducing these impacts to **less-than-significant** levels after mitigation.

WFA EIR Potentially Significant Impacts

Water Quality

- Sacramento River and Delta Water Quality

Fisheries Resources and Aquatic Habitat

- Impacts to Folsom Reservoir's warm water fisheries
- Fall-run Chinook salmon
- Flow- and temperature-related impacts to splittail (February–May)

The mitigation measures applied to these impact areas would reduce these impacts, but not necessarily to **less-than-significant** level.

WFA Significant Impacts

Water Supply

- Decrease in deliveries to State Water Project (SWP) customers
- Decrease in deliveries to Central Valley Project (CVP) customers

Recreation

- Reduced rafting and boating opportunities on the Lower American River
- Reduced Folsom Reservoir boating opportunities
- Reduced availability of Folsom Reservoir swimming beaches

Land Use and Growth-Inducing Impacts

- Land use and growth-inducing impact in the water service study area

Cultural Resources

- Effect of varying water levels on cultural resources in Folsom Reservoir

The WFA EIR determined that even after mitigation is applied to these topical areas, the level of significance after mitigation would remain significant and unavoidable.

The WFA EIR is a programmatic EIR and did not evaluate the specific environmental effects of construction and operation of facilities necessary to implement the water deliveries under the WFA, such as storage tank sizes, backbone transmission line diameters, or other distribution facilities. The WFA EIR indicated that facility construction projects would be evaluated in separate tiered or project-level environmental documents.[477]

Because cumulative development, including the SOI Amendment Area, would require water from the Sacramento River Water Diversion Project, which is as yet unfunded and unapproved, and the EIR for this project indicated that significant and unavoidable impacts would result, this is considered significant and unavoidable cumulative impact. Because the Remainder Area would depend upon water from the Sacramento River, the project's contribution would be cumulatively considerable, and a **significant and unavoidable** impact would result.

[477] City-County Office of Metropolitan Water Planning, Water Forum Proposal Draft EIR (SCH #95082041), January 1999, p.4.1-3.

West Roseville Specific Plan

Cumulative water supply, storage, and distribution impacts that would occur as a result of development in the region, including the West Roseville Specific Plan (but without the Remainder Area), would also be significant and unavoidable for the reasons described above under the discussion for the SOI Amendment Area. However, while water demand associated with buildout of the City's General Plan and the West Roseville Specific Plan would be supplied by existing and assured sources of City water, any increase in water demand in a region that does not have adequate and assured water supplies for cumulative development would result in a cumulatively considerable contribution to the cumulative impact. Therefore, while the project-level impact is less than significant, the project's contribution to the cumulative impact would be **significant and unavoidable**.

Potable Water Treatment

This cumulative analysis considers the potential environmental effects of treating water within the context of regional supplies and demands generated in Placer County, Sutter County, and Sacramento County under the provisions of the WFAO.

SOI Amendment Area

The Barton Road WTP has the capacity to treat all of the City's General Plan and proposed WRSP Area through buildout in 2020. The City does not have the treatment capacity or the conveyance facilities to provide potable water to the Remainder Area. To meet Remainder Area water supply needs, a diversion from the Sacramento River is required. If approved and constructed, the Sacramento River Water Reliability Project would require the provision of water treatment and storage facilities with a capacity of 255.0 mgd to meet the diversion and delivery requirement of PCWA, Sacramento Suburban Water District (SSWD), and the cities of Roseville and Sacramento. The Sacramento River Water Reliability Project would also require the necessary pipeline systems to deliver treated water to, and interconnect with, the existing PCWA, SSWD, Roseville, and Sacramento water distribution facilities. The construction and operation of water treatment facilities for the Sacramento River Water Reliability Project are assumed to result in similar cumulative impacts as previously described for water supply since similar infrastructure facilities would be required.

Because cumulative development would require the treatment of water from the Sacramento River Diversion Project, which is as yet unapproved and unfunded, and implementation of the Sacramento River Diversion project could result in significant and unavoidable impacts, the cumulative impact associated with water treatment is also considered significant and unavoidable. Because the Remainder

Area would depend upon water from the Sacramento River, the project's contribution would be cumulatively considerable, and a **significant and unavoidable** impact would result.

West Roseville Specific Plan

The Barton Road Water Treatment plant currently has a capacity of 60 mgd, which is the result of an expansion project completed in 2001. The treatment plant site has been master planned to an overall capacity of 100 mgd. These expansions will be completed in two phases: an expansion to 75 mgd, which is expected to be completed in mid-2006, and an expansion to 100 mgd, which is expected to be completed in mid-2010.[478] Future City buildout demand for potable water treatment in 2020 is estimated to be 88.93 mgd, which can be treated by the facility.

As previously mentioned, cumulative development in the region requires water from the Sacramento River project. Because cumulative development would require water from the Sacramento River Diversion Project, which is as yet unapproved and unfunded, and implementation of the Sacramento River Diversion project could result in significant and unavoidable impacts, the cumulative impact associated with water treatment is also considered significant and unavoidable.

However, because the WRSP Area does not rely upon water from the Sacramento River Water Reliability Project, and City's existing treatment plant has sufficient capacity designed to accommodate flows generated by the City for both current General Plan and WRSP Area buildout, the WRSP Area's contribution to the cumulative impact is not cumulatively considerable and a **less-than-significant** impact would result.

Recycled Water

Recycled Water Supply, Storage, and Distribution

The cumulative context for recycled water supply is cumulative development identified in Section 5.2.2 of this document that would occur in Placer County, Sutter County, and Sacramento County. One of the cumulative projects identified in Section 5.2.2 is Roseville Electric's new Energy Park, which is in the early stages of planning and is being considered to meet the community need for service reliability and cost stability. If the proposed 150-megawatt energy facility were constructed, part of the excess recycled water supply from the PGWWTP would be used for cooling water. Therefore, development of the energy facility is considered in the cumulative context for recycled water. The total annual recycled water demand for a 150-megawatt plant would be approximately 1,112 AF/yr, which would correspond to a

[478] City of Roseville, 2002 Urban Water Management Plan, July 2002, p.13.

peak day demand of 1.45 mgd.[479] To meet this demand, a continuous supply of 1,006 gpm of recycled water from the PGWWTP is required.[480]

SOI Amendment/WRSP

Currently, recycled water is produced at the existing DCWWTP and distributed to locations within the City. When the PGWWTP becomes fully operational, recycled water from the PGWWTP and the existing DGWWTP will comprise the regional recycled water facilities that would produce recycled water for use in the City, including the SOI Amendment Area, as well as the City's regional partners' service areas. Current and future recycled water planning efforts for the City of Roseville are described in the Recycled Water Distribution System Feasibility Study (April 2000), which provides for recycled water demand through 2030. As illustrated by the data in Table 4.11-12, there would be 12.0 mgd average day supply (or 6.33 mgd peak day supply) available from the combined flows from the City's DCWWTP and PGWWTP after serving City customers, the SOI Amendment, the 700 gpm constant supply to the recycled water tank at Woodcreek Oaks Golf course, and without the proposed energy facility. These additional flows could be used for other projects not anticipated in the Feasibility Study and included in the demand from the SOI Amendment Area, such as the cumulative development identified in Section 5.2.2 of this document. Because recycled water is available to meet existing and projected demands, including the SOI Amendment Area, this is considered a less-than-significant cumulative impact for recycled water supply and distribution. The project's contribution would not be cumulatively considerable, and a **less-than-significant** impact would result.

The distribution system to convey the recycled water would be expanded, and additional storage tanks and pumps could be needed. The extension of the system to areas outside the City of Roseville where such facilities do not exist could result in potentially significant environmental effects, in part, related to construction activities. However, it would be speculative to identify the level of significance of potential environmental impacts absent a plan that identifies a specific project and/or project location; further, any infrastructure improvements would be subject to environmental review on a project-by-project basis. However, the surplus recycled water could accommodate growth, and indirect effects of growth (e.g., traffic, air, and noise) could result in significant and unavoidable cumulative impacts. The project's contribution to those impacts would be cumulatively considerable, since the project includes an expansion to the PGWWTP and a **significant and unavoidable** impact would result.

[479] HydroScience Engineers, Recycled Water Study for West Roseville Specific Plan Area, May 21, 2003, p.28.
[480] HydroScience Engineers, Recycled Water Study for West Roseville Specific Plan Area, May 21, 2003, p. 30

Wastewater

Wastewater Collection and Distribution

A Regional Wastewater Treatment Service Area Master Plan (Master Plan) EIR (WWMP EIR) has been prepared for major wastewater conveyance and treatment improvements to serve the area through buildout of the City's WWMP service area. This service area collectively includes the service areas of both the PGWWTP and the Dry Creek Wastewater Treatment Plant (DCWWTP). The WWMP EIR considered a DWP of 20.7 mgd for flow to the PGWWTP at buildout. The cumulative context for wastewater treatment is development assumed with ultimate buildout of the general plans and approved development plans for those areas within the Master Plan service area, plus additional development that could seek to connect to the PGWWTP. Only the northeast portion of the SOI Amendment Area is currently included in the Master Plan Service Area, which is the area previously called Phase 1 of the Villages at Blue Oaks.

SOI Amendment/WRSP

As shown on Table 4.11-14, the Remainder area is anticipated to generate flows of 5.1 mgd ADWF to be treated at the PGWWTP. When the 1.1 mgd that was previously assumed for the Villages at Blue Oaks is subtracted, as it was originally included in the WWMP EIR flow to PGWWTP, the total net increase in flows from the SOI Amendment Area would be 4.0 mgd more than anticipated under the Wastewater Master Plan EIR, and the PGWWTP would need to be 24.7 mgd in order to treat flows from the full SOI Amendment Area. Flow from the SOI Amendment Area of 24.7 mgd is considered in section 4.11 of this EIR. If other projects unanticipated in the Wastewater Master Plan propose to have wastewater treated at the PGWWTP, additional approvals and increases in capacity would be needed. Because of site limitations, an expansion to treat more than 20.7 mgd would require an expansion beyond the current site boundary. The extent to which the PGWWTP would need to expand to treat additional wastewater beyond the 24.7 considered in this EIR would depend on which projects would use the plant, subject to approval of the South Placer Wastewater Authority.

The Placer Vineyards project is proposing to convey its wastewater to the Sacramento Regional Wastewater Treatment Plant. Placer Ranch is geographically located such that it could be served either by the PGWWTP or by the City of Lincoln's Regional wastewater treatment plant. Current plans for Placer Ranch indicate that it proposes to connect to the PGWWTP. The possible De la Salle/AKT University Project to the west of the WRSP would also likely propose to connect to the PGWWTP, and other projects could propose to connect as well. As with the SOI Amendment Area, wastewater flows in excess of 20.7 mgd would need to be analyzed, since that was the capacity analyzed in the Wastewater

Master Plan EIR. If flows were to exceed 20.7 mgd, an expansion beyond the current site would be necessary. Expansion of the plant to serve such unanticipated flows could result in impacts on the environment associated with construction to increase the capacity of the plant, loss of natural and other resources to expand the footprint of the facility, and degradation of water quality as a result of increased discharges to Pleasant Grove Creek.

This EIR evaluates the conversion of the 20 acres immediately south of the PGWWTP to plant facilities. The NPDES discharge permit for the PGWWTP would also need to be amended to reflect higher flows. Construction impacts, such as noise and disturbance of wildlife, have also been addressed to the extent possible in this EIR and the Wastewater Master Plan EIR. However, this EIR does not consider the effects of operating a facility with flows in excess of 24.7 mgd (the amount needed to accommodate the full SOI Amendment Area plus growth in the WWMP EIR service area through buildout).

The construction and operation of additional wastewater treatment facilities, as well as wastewater collection systems, to areas outside the WWMP EIR service area and the SOI Amendment Area where such facilities do not exist could result in potentially significant environmental effects, in part, related to construction activities. However, it would be speculative to identify the level of significance of potential environmental impacts absent a plan that identifies a specific project and/or project location; further, any infrastructure improvements would be subject to environmental review on a project-by-project basis. The construction of additional wastewater treatment and collection facilities, where such facilities do not exist, could result in indirect growth effects (e.g., traffic, air, and noise), which could be significant and unavoidable on a cumulative basis. While adequate wastewater treatment would be required prior to project approval, the fact that regional wastewater treatment systems are not available combined with the uncertainty regarding construction and operation impacts results in a cumulative impact that is significant and unavoidable**.** However, the project's contribution to those impacts would not be cumulatively considerable, because this document evaluates and requires the expansion of the PGWWTP to accommodate the excess demand from the SOI Amendment Area. Therefore, this project's contribution to the cumulative condition is a **less-than-significant** impact would result.

Solid Waste

The cumulative context for solid waste is the service area of the Western Regional Sanitary Landfill, which serves the Cities of Roseville, Rocklin, Lincoln, and Placer County.

SOI Amendment/WRSP

Currently, the landfill is anticipated to be able to accept waste until 2036. However, the final closure date would be affected by several factors, including regional growth rates, economic conditions, and the efficiency of waste recovery.[481] Depending on these factors, waste from the SOI Amendment Area, in combination with other cumulative development, could shorten the lifespan of the landfill. The WRSP alone would increase the amount of waste received by the WRSL over a twenty to thirty year period by approximately 301,740 to 452,610 tons, on 2.2 to 3.2 percent of the WRSL's remaining capacity. Depending on when the SOI Amendment Area is built out, it would generate approximately 576,320 to 864,480 tons of solid waste (assuming 20 to 30 full years of waste generation). This waste would require 4.1 to 6.2 percent of the landfill's remaining capacity.

MM 4.11-11 would reduce the amount of waste to be landfilled by requiring that Specific Plans or other development plans in the Remainder Area provide greenwaste bins to residences, as currently required by the WRSP Development Agreement. The WRSP also requires source-reduction measures. This mitigation would reduce the amount to be landfilled by approximately 1,282 tons/year. Similar measures could be adopted by other projects, but could only be required by the City of projects within its jurisdiction. MM 4.11-10 calls for increasing landfill capacity, but the decision to expand the landfill rests with the WPWMA, rather than the City of Roseville. Currently, the WRSL is expected to have capacity to accommodate waste from development until 2035. If development in the WRSL service area occurs more rapidly than anticipated, the landfill's lifetime would be shortened, necessitation expansion sooner than anticipated. MM 4.11-10 would reduce this cumulative impact by expanding landfill capacity. However the City cannot guarantee that expansion beyond current plans. Therefore, the cumulative impact is significant and unavoidable. The project's contribution to the cumulative impact would be considerable, given that additional solid waste would be generated, and the impact would also be considered **significant and unavoidable**.

Development of the SOI Amendment Area would also generate approximately 65 tons per day of solid waste that would require processing at the MRF, and other cumulative projects could require additional processing at the MRF. Based on projections for the Capacity Enhancement Project 2002-2003 (Appendix C of the Final EIR), the increase in waste associated with the SOI alone could cause the MRF to exceed its capacity by 2008. MM 4.11-12 calls for increasing the capacity of the MRF by adding additional processing lines. This could increase MRF capacity, such that it may be adequate to process waste from the SOI Amendment Area and from other development anticipated in WPWMA's current plans. The

[481] Western Placer Waste Management Authority, Capacity Enhancement Project 2002-2003 Draft Environmental Impact Report, January 9, 2003, page 3-6.

WPWMA can and should increase the capacity of the MRF and the City shall advocate that it do so. However, the City cannot compel the WPWMA to take such action. Because the MRF has enough capacity to treat its daily processing requirements and an additional expansion is planned to allow adequate processing through 2008, cumulative MRF impacts are considered less than significant. However, the project's contribution to the cumulative impact is considerable because it would cause the MRF to exceed its capacity by 2008, which result in a **significant and unavoidable** impact.

West Roseville Specific Plan

As discussed in Impact 4.11-9, the WRSP would generate approximately 13,213 tons per year of solid waste that would require disposal at the WRSL. The WRSP would also increase the amount of construction debris (Impact 4.11-11) received at the landfill, as the well as additional sludge from the wastewater treatment plant. The WRSP requires source-reduction measures, such as greenwaste bins, which would divert an unknown amount of waste. Nonetheless, the WRSP would increase the amount of waste received by the WRSL over a twenty to thirty year period by approximately 182,760 to 274,140 tons, or 1.3 to 2.0 percent of the WRSL's remaining capacity, assuming that the growth projections developed for the Capacity Enhancement Project 2002-2003 are realized.

The WRSP, along with other development in the region, would also increase the amount of processing needed at the MRF. AS discussed in Impact 4.11-10, the MRF is expected to reach its planned capacity in approximately six years, necessitation additional expansion , as called for by MM 4.11-11. Because the City does not have jurisdiction over the MRF, this is considered a significant and unavoidable cumulative impact. The project's contribution to the cumulative impact would be considerable, given that additional solid waste would be generated, and the impact would also be considered **significant and unavoidable**.

Electricity

The cumulative context for electricity is the service area of the Western Area Power Administration, which is generated by the federal government's Central Valley Project and from other members of the Northern California Power Agency, a joint powers agency.

SOI Amendment Area/WRSP

Cumulative development in the region must comply with Title 20 and Title 24 California Code of Regulations to reduce overall energy demand. However, regional electricity demands are directly related to changing power generation and distribution in the western U.S. Further, the sources of energy are diverse and widespread. The exact source that would supply future development in the City or the region is not known at this time. Currently, the region obtains power from combustion (natural gas),

hydroelectric facilities, and geothermal projects. The proposed Roseville Energy Park would be a source of additional electricity for the City of Roseville. Construction of new or expanded facilities could affect the environment, particularly during construction when impacts related to soil erosion, storm runoff, increased noise, dust, and vehicle emissions could result. In addition, sensitive habitats, visual resources, and cultural resources could be affected.

The regional strategy is to (1) continue to rely on electricity from the Western Area Power Administration; (2) acquire new sources of energy; and (3) to continue to promote energy conservation. However, sufficient reliable sources of electrical power are not guaranteed, as evidenced by the energy shortfalls during California's "energy crisis." Therefore, an increased demand for electrical service due to cumulative development in the region would be considered significant and unavoidable on a cumulative basis. However, because Roseville Electric has guaranteed the provision of adequate electricity for the SOI Amendment Area and the WRSP Area, including provision of transmission facilities, and will construct a new substation (and a second, if required), the project's contribution to this cumulative impact is not cumulatively considerable and would be **less than significant**.

Natural Gas

The cumulative context for natural gas is the supply area of PG&E.

SOI Amendment Area/WRSP

PG&E has indicated that supplies of natural gas exist to serve future development of the SOI Amendment Area and, typically, natural gas supplies are available for all proposed development. The exact source that would supply the City in the future is not known, and would vary over time. In 1999, 28 percent of California's natural gas supply came from Canada, 10 percent from the Rockies, and 46 percent from the Southwest.[482] Because natural gas can be transmitted for long distances, it can be obtained from a wide range of sources, both in and out of California. Therefore, it would be speculative to attempt to assess the impacts of using any particular source of natural gas. Because natural gas has always been made available, and could be transmitted for long distances, the cumulative impact would be less than significant. The project's contribution to that impact would be rendered less than cumulatively considerable and a less-than-significant impact would result.

Pacific Gas and Electric (PG&E) provides natural gas service to the City of Roseville and beyond. Natural gas regulators and transmission lines are required to serve residences and businesses. Expansions of

[482].California Energy Commission website, California's Major Sources of Energy, http://www.energy.ca.gov//energysources.html, accessed June 14, 2001.

these types of facilities would be required to serve the growing population of the Region, and would be constructed as new development is approved. The construction and operation of additional natural gas transmission facilities to areas outside the City of Roseville where such facilities do not exist could result in potentially significant environmental effects, in part, related to construction activities. However, it would be speculative to identify the level of significance of potential environmental impacts absent a plan that identifies a specific project and/or project location; further, any infrastructure improvements would be subject to environmental review on a project-by-project basis. The construction of additional natural gas transmission facilities, where such facilities do not exist, could result in indirect growth effects (e.g., traffic, air, and noise), which could be significant and unavoidable on a cumulative basis. While the provision of adequate natural gas would be required prior to project approval, the fact that such facilities are not available combined with the uncertainty regarding construction and operational impacts results in a cumulative impact that is significant and unavoidable. However, the project's contribution to those impacts would not be cumulatively considerable, because this document evaluates and requires the provision of such facilities to accommodate the excess demand from both the WRSP Area and the Remainder Area. Therefore, a **less-than-significant** impact would result.

Hydrology and Water Quality

Potential impacts on hydrology and water quality are attributed to development not only within the City limits, but in the watershed area that exists outside of the City limits. The context for the evaluation of potential cumulative impacts on flood conditions and water quality is the Pleasant Grove Creek watershed and Curry Creek watershed that are tributary to the Cross Canal watershed, which drains to the Sacramento River.

Stormwater Peak Flows and Volumes

Cumulative development in the Roseville area, which includes the Pleasant Grove Creek watershed, would increase the amount of impervious surface cover, which would, in turn, generate stormwater runoff peak flows. The increased runoff to the streams in the watershed would also increase the amount of stormwater runoff. As noted in Section 4.8, Hydrology and Water Quality, several developments upstream and east of State Route 65 in Lincoln and Rocklin have constructed or have planned regional detention storage basins along Pleasant Grove Creek and its tributaries. Based on a comparison of data generated for cumulative plus project upstream conditions with and without upstream detention (Model 3 and Model 4), each of these basins contributes to delays in downstream peak flows at the WRSP project area boundary. As a result, placing detention in the lower portions of the Pleasant Grove Creek watershed to manage all events, including the higher frequency (2-year) small storms, would likely delay peak flows such that the combined effect could actually increase peak flows downstream, which could

increase flood risk to downstream properties. Consequently, detention is not used in the lower portions of the watershed. The conclusion for the Pleasant Grove Creek watershed is consistent with drainage studies prepared for projects located upstream in the City of Roseville.

The 1993 *Auburn Ravine, Coon, and Pleasant Grove Creek Watershed Study* ("1993 study") examined the Pleasant Grove Creek watershed and other regional drainages that affect Sutter County. Figure 3-3 in the 1993 study identified future land assumptions for determining potential impacts from urban runoff. The study concluded that all planned future development in Placer County, if unmitigated, could increase flows by less than 0.3 foot (3.6 inches) along tributary streams and approximately 0.1 foot (1.2 inches) in the ponding area upstream of the Cross Canal. These increases would inundate several hundred additional acres in Sutter County during a major flood.[483]

Conclusions of this study recommended a combination of regional and local detention and retention basins, adoption of a regional floodplain management plan, and adoption of grading ordinances and policies.[484] Although the SOI Amendment Area is not delineated on Figure 3-3 in the 1993 *Auburn Ravine, Coon, and Pleasant Grove Creek Watershed Study*, the 1993 study remains the current, adopted study for identifying potential cumulative effects of stormwater runoff and measures for mitigating such increases.

Both City of Roseville and Placer County General Plan policies require that individual projects mitigate their contribution of increased surface water flows to minimize the potential for increased on- and off-site flooding. As described in Section 4.12, Hydrology and Water Quality (Environmental Setting), the City is planning a regional stormwater retention basin (Reason Farms) in western Placer County downstream of the SOI Amendment Area. Preliminary estimates of the amount of retention that would be needed to reduce potential flooding impacts at downstream locations (e.g., Placer-Sutter County line) were developed, and the most recent analysis indicates that approximately 2,350 ac-ft of storage volume would be required to mitigate the increase in the amount (volume) of stormwater runoff. Although the SOI Amendment Area is currently outside the City limits, runoff volumes for the SOI Amendment were included in the 2,350 acre-feet (ac-ft) volume for purposes of developing a conceptual basin design.[485]

A Draft EIR (SCH #2002072084) that evaluates the potential environmental effects of construction and operation of the regional retention basin was prepared in October 2002, and the Final EIR was certified in January 2003. The EIR included a hydrologic and hydraulic analysis that concluded that the basin would

[483] Placer County Flood Control and Water Conservation District, *Auburn Ravine, Coon, and Pleasant Grove Creeks Flood Mitigation*, June 1993, page ES-3.
[484] CH2MHILL, *Auburn Ravine, Coon, and Pleasant Grove Creeks Flood Mitigation*, Volume 1, June 1993.
[485] City of Roseville, Final EIR for the City of Roseville Retention Basin Project (SCH #2002072084), January 10, 2003, Table 1, p.1-2.

increase the peak flow rate upstream of the site and decrease the peak flow rate downstream of and through the site. It would also decrease flood elevations upstream and through the site along Pleasant Grove Creek as well as downstream.[486]

The SOI Amendment Area is at the headwaters of Curry Creek. No development is proposed upstream in the watershed. Only a small portion (approximately 271 acres) of the proposed 5,000+ acre Placer Vineyards project is drained by Curry Creek.[487] Runoff from that portion of Placer Vineyards would contribute to flows in Curry Creek. Hydrologic modeling has not been completed for Placer Vineyards; however, the rate and amount of runoff under cumulative conditions is expected to be minimal due to the size of the contributing subshed (271 acres) relative to the size of the watershed (approximately 10,880 acres), and detention facilities would likely be required to ensure consistency with Placer County and Placer County Stormwater Management Manual requirements. There are no other planned or approved projects that would contribute to cumulative conditions in the Curry Creek watershed. (Note: the proposed South Sutter County Specific Plan project is south of the Curry Creek watershed.[488]) For Curry Creek at Brewer Road, the estimated increase in water surface elevations identified in the 1993 study for both the 2-year and 100-year storm was 0.01 feet.[489]

SOI Amendment

Development of the Remainder Area, in combination with the WRSP and development upstream in the Pleasant Grove Creek watershed would increase the rate of stormwater runoff. It would also increase the amount of runoff entering Pleasant Grove Creek. As discussed in Impact 4.12-1, project area modeling for the Pleasant Grove Creek watershed (which included the northern MOU Remainder Area) indicated that detaining peak flows in basins would not be recommended because it could exacerbate flooding by allowing peak flows to coincide. When future land uses in the northern MOU Remainder Area have been more clearly defined, site-specific drainage hydrologic and hydraulic analyses would be performed as a condition of project approval (as required under City of Roseville General Plan Policy SB-6) and subject to review by the PCFCWCD. This would ensure the Remainder Area's contribution to peak flow rates is considered within the larger context of regional flows. The proposed regional retention basin (Reason Farms) would be required to mitigate cumulative stormwater volumes, as discussed above. Because the regional retention facility in the Reason Farms property is funded and approved, the cumulative impact would be less than significant for the Pleasant Grove Creek watershed. Implementation of MM 4.12-2

[486] City of Roseville, Initial Study for the City of Roseville Retention Basin Project), July 22, 2002, p.86.
[487] Placer Vineyard DEIR, Quad Knoff, Section 4.3.2
[488] Sutter County Community Services Dept., Draft EIR South Sutter County Specific Plan, October 2001, Figure 2.1-2.
[489] Placer County Flood Control and Water Conservation District, *Auburn Ravine, Coon, and Pleasant Grove Creeks Flood Mitigation*, June 1993, Table 4-3, p.4-8.

would provide capacity and a mechanism for determining the SOI Amendment Area's proportionate contribution to development of the regional retention basin, which would ensure that impacts are not cumulatively considerable. A **less-than-significant** impact would result.

For Curry Creek, peak flows from the Remainder Area could increase the risk of downstream flooding. If a combined basin in the Remainder Area is not large enough to detain SOI Amendment Area flows in accordance with PCFCWCD and City Improvement Standards drainage criteria, peak flows could be increased downstream. Flows from the 271-acre portion of the proposed Placer Vineyards project that drain to Curry Creek could also contribute to peak flow rates and volumes, which could further increase the risk of flooding downstream of the SOI Amendment Area. This is considered a significant and unavoidable cumulative impact. A larger detention/retention basin near the main branch of Curry Creek within the SOI Amendment Area could be developed to control peak flows and volumes, but a site-specific preliminary drainage study and environmental review must be prepared for both City of Roseville and Placer County approval.

The 1993 study indicated that increases in water surface elevations downstream of the SOI Amendment Area at Brewer Road as a result of stormwater flows would be minimal (0.01 feet). However, neither the proposed SOI Amendment nor the proposed Placer Vineyards project were assumed in the future land uses that would contribute flows to the watershed. While implementation of MM 4.12-1 through MM 4.12-3 would reduce the SOI Amendment Area's contribution to this impact by ensuring peak flows and volumes from the SOI Amendment Area are minimized, a site-specific drainage study that includes the SOI Amendment Area and the proposed Placer Vineyards project within the regional context has not been developed. Therefore, the combined effect cannot be determined at this time and the project's contribution must be assumed to be cumulatively considerable in order to provide a conservative analysis, particularly in light of the size of the Remainder Area in the context of the Curry Creek watershed. Further, because the development and approval of storm drainage infrastructure for other projects contributing to the Curry Creek watershed (e.g., Placer Vineyards) would be under the jurisdiction of Placer County to monitor and enforce, this would result in a **significant and unavoidable** impact for the Curry Creek watershed.

West Roseville Specific Plan

Table 5-22 shows the changes in peak flow rates that would occur downstream in Pleasant Grove Creek under cumulative conditions. The proposed WRSP would generate stormwater runoff, but it would not contribute to increased peak flow rates for the 10-year and greater storm events, as discussed in Impact 4.12-1, even without detention. Therefore, the proposed WRSP would not considerably contribute to cumulative peak flow impacts for the 10-year and greater storms in Pleasant Grove Creek. The proposed

WRSP would slightly increase peak flow rates during the 2-year storm. The proposed WRSP's contribution to the cumulative condition as result of the small (approximately 2.3 percent) increase in peak flows for the 2-year storm is discussed below.

Table 5-22 Pleasant Grove Creek Comparison of Pre-Development And Post-Development Cumulative Peak Flow Conditions

	Pleasant Grove Creek at West End of Project			Pleasant Grove Creek at Brewer Road			Pleasant Grove Creek at Placer-Sutter County Line			Pleasant Grove Creek at Cross Canal		
Location	**Exist(cfs)**	**Dev(cfs)**	**Percent Chg**	**Exist(cfs)**	**Dev(cfs)**	**Percent Chg**	**Exist(cfs)**	**Dev(cfs)**	**Percent Chg**	**Exist(cfs)**	**Dev(cfs)**	**Percent Chg**
2-YEAR												
Existing PGC watershed with WRSP existing conditions	1,857			2,052			2,079			2,076		
Existing PGC Watershed Conditions with WRSP Developed		1,848	- 0.5 % (decrease)		2,012	- 1.9 % (decrease)		2,045	- 1.6 % (decrease)		2,047	- 1.6 % (decrease)
Buildout PGC Watershed conditions with out existing upstream basins		2,336			2,779			2,794			2,803	
Buildout PGC Watershed conditions including upstream basins		2,322			2,766			2,782			2,797	
Project Contribution to Cumulative (%)			negligible			6.9%			7.0%			6.3%
10-YEAR												
Existing PGC watershed with WRSP existing conditions	4,449			5,344			5,286			5,227		
Existing PGC Watershed Conditions with WRSP Developed		4,384	-1.5 % (decrease)		5,236	-2.0 % (decrease)		5,200	-1.6 % (decrease)		5,150	-1.5 % (decrease)
Buildout PGC Watershed conditions with out existing upstream basins		4,909			5,832			5,757			5,687	
Buildout PGC Watershed conditions including upstream basins		4,858			5,797			5,725			5,658	
Project Contribution to Cumulative (%)			negligible			negligible			negligible			negligible

Table 5-22 Pleasant Grove Creek Comparison of Pre-Development And Post-Development Cumulative Peak Flow Conditions

Location	Pleasant Grove Creek at West End of Project			Pleasant Grove Creek at Brewer Road			Pleasant Grove Creek at Placer-Sutter County Line			Pleasant Grove Creek at Cross Canal		
	Exist(cfs)	Dev(cfs)	Percent Chg	Exist(cfs)	Dev(cfs)	Percent Chg	Exist(cfs)	Dev(cfs)	Percent Chg	Exist(cfs)	Dev(cfs)	Percent Chg
25-YEAR												
Existing PGC watershed with WRSP existing conditions	6,115			7,034			6,982			6,897		
Existing PGC Watershed Conditions with WRSP Developed		6,095	-0.3 % (decrease)		6,930	-1.5 % (decrease)		6,898	-1.1 % (decrease)		6,834	-0.9 %(decrease)
Buildout PGC Watershed conditions with out existing upstream basins		6,508			7,445			7,383			7,229	
Buildout PGC Watershed conditions including upstream basins		6,374			7,370			7,315			7,328	
Project Contribution to Cumulative (%)			negligible			negligible			negligible			negligible
100-YEAR												
Existing PGC watershed with WRSP existing conditions	8,162			9,070			9,021			8,947		
Existing PGC Watershed Conditions with WRSP Developed		8,124	-0.5 %(decrease)		8,921	-1.6 %(decrease)		8,882	-1.5 %(decrease)		8,823	-1.4 %(decrease)
Buildout PGC Watershed conditions with out existing upstream basins		8,551			9,368			9,316			9,251	
Buildout PGC Watershed conditions including existing upstream basins		8,305			9,199			9,165			9,115	
Project Contribution to Cumulative (%)			negligible			negligible			negligible			negligible

NOTES:

cfs = cubic feet per section

Ex = existing (pre-developed) conditions

Dev = developed conditions

Existing upstream basins are located in Whitney Oaks, Sunset West, Highlands Reserve and Stanford Ranch developments.

Percent Chg = percent change (increase/reduction) in peak flow rates compared to existing conditions

SOURCE: Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, Volume 2, Appendix L

Table 5-23 indicates that for Pleasant Grove Creek, the 1993 study estimated that water surface elevations at Pettigrew Road would be between 0.34 feet and 0.35 feet at Brewer Road for the 2-year event, when considered within the larger context of the entire 292-square-mile watershed.[490] There would be an estimated increase in the 2-year stage in the ponding area of 0.08 feet, which represents a decrease in water surface elevations downstream. Hydraulic modeling for the proposed WRSP (which is discussed in Section 4.12, Hydrology and Water Quality) indicates that there would be a decrease in water surface elevations of 0.02 and 0.03 feet, respectively, at the WRSP/SOI Amendment Area boundary and at the boundary between the SOI Amendment Area and the Reason Farms property without the regional retention facility (see Table 5-23). The water surface elevation at the furthest modeled downstream location (west boundary of Reason Farms property, approximately 1.9 miles east of the Sutter County line) is projected to increase by 0.03 feet (approximately one-third of an inch) without the regional retention facility. The 0.03-foot increase caused by the proposed WRSP would be in addition to the levels estimated in the 1993 study and would represent an approximately 8 percent increase in the projected cumulative increase at the downstream Pleasant Grove Creek locations, which were projected to range from 0.34 to 0.35 feet. This would be considered a significant and unavoidable cumulative impact for the Pleasant Creek watershed if the Reason Farms regional retention facility was not constructed.

Table 5-23 Pleasant Grove Creek WRSP Contribution to Cumulative Downstream Changes in 2-Year Water Surface Elevations

Location Modeled in WRSP Hydraulic Analysis	Existing Water Surface Elevation (ft)	Existing Plus WRSP Water Surface Elevation (ft)	Net Change (ft)	WRSP Addition to Cumulative Change Estimated in 1993 Study
Pleasant Grove Creek at WRSP/MOU Remainder Area #1 boundary(Mile 3.532)	78.22	78.20	-0.02	none
Pleasant Grove Creek at MOU Remainder Area #1/Reason Farms property boundary(Mile 2.398)	73.21	73.18	-0.02	none
Pleasant Grove Creek at west boundary of Reason Farms property(1.9 miles east of Placer-Sutter County line, Mile 0.0189)	56.90	56.93	+0.03	8 %
PROJECTED 2-YEAR CUMULATIVE WATER SURFACE ELEVATION CHANGE IDENTIFIED IN 1993 AUBURN RAVINE, COON, AND PLEASANT GROVE CREEKS FLOOD MITIGATION STUDY (WITHOUT REGIONAL RETENTION BASIN)				
Pettigrew Road			0.34	
Brewer Road			0.35	

SOURCE: data compiled from Wood Rodgers Inc., Fiddyment-Westpark Master Plan Drainage Analysis, Volume 2, Appendix M (HEC-RAS Summary of Results), and Placer County Flood Control and Water Conservation District, Auburn Ravine, Coon, and Pleasant Grove Creeks Flood Mitigation, June 1993, Table 4-3, p.4-8.

As noted above, the WRSP was included in the 2,350 acre-feet volume for purposes of developing a conceptual regional retention basin design for Reason Farms. As further noted, results of hydrologic and hydraulic modeling prepared for the retention basin project indicate that operation of the basin would

[490] Placer County Flood Control and Water Conservation District, *Auburn Ravine, Coon, and Pleasant Grove Creeks Flood Mitigation*, June 1993, Table 4-3, p.4-8.

decrease the peak flow rate and flood elevations downstream in Pleasant Grove Creek. Implementation of MM 4.12-2 would ultimately reduce project-specific contributions to regional flood conditions due to increased stormwater flows. Because the regional retention basin is funded and approved, the project's contribution to this impact is not cumulatively considerable and the impact would be **less than significant** for the Pleasant Grove watershed.

Detention basins would also be included in the portion of the WRSP draining to Curry Creek. Results of hydrologic modeling indicate that the proposed basin storage and outflow design described above for Curry Creek would exceed the required peak flow mitigation in the City's Stormwater Management Plan. Therefore, there would be no contribution to the cumulative peak flow conditions in the Curry Creek watershed. With detention facilities in place, the data in Table 4.12-8 indicate that water surface elevations downstream of the WRSP also would not increase. Therefore, the project's contribution would not be cumulatively considerable, and impacts would be **less than significant** for the Curry Creek watershed.

Floodplain

SOI Amendment/West Roseville Specific Plan

As discussed in Section 4.12, Hydrology and Water Quality, FEMA published a Flood Insurance Rate Map (FIRM) for Pleasant Grove Creek and Curry Creek in 1998. The mapping delineates the boundary of the 100-year floodplain along Pleasant Grove Creek and Curry Creek in the SOI Amendment Area and designates the floodplain as Zone A (no base flood elevations determined). Detailed mapping showing cross-sections and base flood elevations ends at the City of Roseville-Placer County corporate limits near Fiddyment Road.

The 100-year floodplain has been defined for Pleasant Grove Creek upstream of the proposed WRSP and downstream west of the Reason Farms property. If the remaining portions of the SOI Amendment Area in the Pleasant Grove Creek watershed were developed at levels similar to those proposed in the WRSP, it is possible that structures or fill could be placed in the floodplain, which could impede or redirect flood flows. Similarly, if fill were placed upstream of the SOI Amendment Area to accommodate future development, the increase in water surface elevations, although relatively small, could be cumulatively considerable and could result in flood risks to existing and planned development. Results of the hydraulic modeling for the placement of small amounts of fill in the floodplain to accommodate development of detention facilities (Curry Creek) and roadway/bridge crossings would not increase water surface elevations. No private development would be allowed in the floodplain. However, implementation of MM 4.12-4 would reduce the proposed project's contribution to this impact by

ensuring that development does not occur in the 100-year floodplain, or if small amounts of fill are placed in the floodplain that water surface elevations would not be measurably affected. Therefore, the proposed WRSP would not contribute to cumulative floodplain impacts. This is considered a **less-than-significant** cumulative impact.

Water Quality

SOI Amendment Area/West Roseville Specific Plan

Both the WRSP and Remainder Areas would drain to Pleasant Grove Creek and Curry Creek, which are part of a larger watershed. The changes in water quality that could occur as a result of construction activities and urban runoff in the WRSP and Remainder Areas would not be expected to differ substantially from other development that contribute flows to Pleasant Grove and Curry creeks upstream of the SOI Amendment Area. There is no published documentation that the water quality in Pleasant Grove Creek or Curry Creek differs substantially. Therefore, for purposes of this discussion, the WRSP and SOI Amendment are considered together.

Cumulative urban development would involve soil-disturbing construction activities, such as vegetation removal, grading, and excavation. These soil disturbances would expose soil to wind- and water-generated erosion, possibly at accelerated rates. Therefore, surface runoff would carry increased sediment loads. As previously described, sediment from erosion can have long- and short-term water quality effects, including increased turbidity, which could result in adverse impacts on fish and wildlife habitat, reduced water pump life due to abrasion, impaired recreation and aesthetic values, and increased flooding hazard due to reduced channel capacity.

Urban development results in increased impervious surfaces that increase the rate and amount of runoff and can alter existing surface water quality. The primary sources of water pollution includes runoff from roadways and parking lots, runoff from landscaping areas, industrial activities (including wastewater treatment plants), non-stormwater connections to the drainage system, accidental spills and illegal dumping. Runoff from roadway and parking lots could contain levels of oil, grease, and heavy metals. Runoff from landscaped areas could contain concentrations of nutrients (i.e., fertilizers and pesticides). The conveyance of urban pollutants to receiving waters by cumulative projects in the watershed would result in significant and unavoidable cumulative impacts.

The City requires that erosion control plans be prepared and approved by the City to reduce water quality impacts during construction activities. The General Plan also requires that urban runoff measures, including Best Management Plans (BMPs), and buffer areas be implemented as part of individual project development to protect water quality from urban development. The City of Roseville

is developing a stormwater quality management program in accordance with recently adopted NPDES Phase 2 requirements.

Implementation of applicable State General Permit requirements for stormwater runoff during construction and anticipated NPDES Phase 2 requirements would reduce potential degradation of receiving water quality attributable to the WRSP and Remainder Area to levels such that the WRSP's and Remainder Areas' contribution would not be cumulatively considerable, and a **less-than-significant** impact would result.

Groundwater Use

The cumulative context for groundwater impacts is the groundwater aquifer generally underlying western Placer County and northern Sacramento County. The boundary of this area is defined in the North American River Integrated Groundwater and Surface Water Model (IGSM) Sutter/Placer Model. This model, which was used in the Sacramento Water Forum process to evaluate acceptable groundwater yields and conjunctive use alternatives, was used to determine dry-year groundwater impacts of the WRSP. The Water Forum Agreement (WFA) currently represents the most likely long-term plan for development of groundwater and surface water supplies in Placer and Sacramento counties, and it reflects projected land use and water demand throughout the two counties in year 2030 as envisioned in current approved general plans.[491] Additional information about the model boundaries and assumptions are described in detail in the Groundwater Impact Report prepared by MWH, which is included in Appendix M.

When a well first begins extracting groundwater from an aquifer, groundwater is initially extracted from groundwater storage. The result is a localized cone of depression with an approximately 1,000-foot radius that fluctuates with operation of the well. When extraction ceases, the aquifer typically recharges back to its pre-extraction condition. Over time, a well can also induce an incremental decline in regional groundwater elevations. Cones of depression with a larger aerial extent can form in areas where multiple groundwater extraction wells are in operation. The location and shape of a regional cone of depression is influenced by the same factors as a single well. A sequence of successive dry years can also decrease the amount of natural recharge to the aquifer, creating an imbalance between natural recharge and extractions. To overcome the imbalance, the aquifer elevations lower to include more natural recharge. Over time, the shape and location of the aquifer's regional cone of depression fluctuates.[492]

[491] MWH, Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan, Draft January 2003, p.4-2.
[492] MWH, Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan, Draft January 2003, Section 3.

Urban growth in northern Sacramento County beginning in the 1950s increased the demand on groundwater such that the groundwater elevation trend along the Sacramento/Placer County line began to show a steady decline of 1 to 1.5 feet per year. Groundwater elevations continued to decline at a relatively steady rate through the droughts of 1976–77 and 1987–92. The effect of the 1987–92 drought on groundwater elevations in most of the basin was relatively minor, with 1990 groundwater levels about 5 to 10 feet lower than the 1985 conditions. However, a pumping depression in an area between Pleasant Grove and North Highlands continued to expand and deepen.[493] This area was of particular concern because of the potential effect groundwater pumping would have on altering the rate of migration of identified groundwater contamination at the former McClellan Air Force Base.[494]

Controlling the fluctuation of groundwater levels within an acceptable range is the focus of regional groundwater management efforts.[495] The Placer County Water Agency (PCWA) has adopted a Groundwater Management Plan. The management of groundwater resources as part of overall regional water supply planning efforts is an element of the Water Forum Agreement (WFA). In 1998, a project was implemented by the PCWA and the Northridge Water District (now Sacramento Suburban Water District, or SSWD) to reduce average groundwater withdrawals in the north Sacramento County area to an early 1990s amount and a corresponding import of treated surface water to meet, on average, the balance of existing and projected water demands in northern Sacramento County. One of the envisioned benefits of implementing such a "conjunctive use" program was stabilization or recovery of the groundwater aquifer underlying southwestern Placer County and northern Sacramento County. Compared to 1997 groundwater elevations, sustained recoveries up to about 20 feet have been identified. While there are still ongoing seasonal fluctuations in groundwater elevations, which is typical for the area, the trend in groundwater levels beyond those seasonal fluctuations varies from a local (within the Northridge Service Area in the SSWD) flattening to a slight increase in water levels over the last four years.[496]

However, it is recognized that groundwater is used in dry years to supplement surface water supplies. During dry years, as discussed in Section 4.11.2 (Public Utilities, Water), up to 6,600 AF/yr of groundwater could be used to supplement City supplies. The need for groundwater is only predicted to occur a small percentage of the time. As discussed in Impact 4.12-6 (groundwater use in dry years) in Section 4.12 (Hydrology and Water Quality) and in Impact 4.11-2 (dry-year water supply) in Section 4.11

[493] Placer County Water Agency, Draft West Groundwater Management Plan, June 23, 1998, pp.13-14.
[494] Placer County Water Agency and Northridge Water District, Groundwater Stabilization Project Draft EIR, October 1998, Project Overview.
[495] MWH, Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan, Draft January 2003, Section 3.
[496] Luhdorff & Scalmanini, In-Lieu Surface Water Use and Ground-Water Basin Conditions 2001, June 2002, p.2.

(Public Utilities), the Development Standards in the Memorandum of Understanding (MOU) for the SOI Amendment (Exhibit C in the MOU) assume that surface water will be used to meet water demands of the SOI amendment. The Guiding Principles for development west of Roseville state that the new demand would need to be met through surface water, recycled water, and other off-sets. An implicit assumption in both the MOU and Guiding Principles is that groundwater would not be used to meet demand on a regular basis. Nonetheless, the City does rely on groundwater in dry years when surface supplies are not available or in emergency conditions, as discussed in the Setting. The Placer County General Plan directs that water demands for new urban development be met with surface water; however, the use of groundwater in dry years is not prohibited.

The existing groundwater "baseline" is representative of current groundwater conditions throughout northern Sacramento County and southwestern Placer County. However, it is also representative of how the groundwater basin is projected to respond under current land use levels and levels of water demand under the historical 70-year hydrologic record. This baseline condition corresponds to the groundwater elevation variations expected to result from implementation of the WFA in the City and all other areas of Placer and Sacramento counties, with the exception of the WRSP and Remainder Areas.[497] Future (2030) baseline groundwater conditions for the SOI Amendment Area were developed to account for the variability of hydrological conditions in the region. The assumptions that were used to project the future baseline conditions are described in detail in the Groundwater Impact Report included in Appendix M. Figures A.1 to A.4 in Appendix M illustrate groundwater contours for wet-year and dry-year scenarios predicted to occur in 2030 using a model developed for the WFA, with some modifications.[498] In Aquifer 2, there is predicted to be a small cone of depression about four miles west of the SOI Amendment Area, as shown on Figure A in Appendix M.

SOI Amendment Area

Because of the sustained recoveries of groundwater elevation since 1997 and the significant efforts to present and protect groundwater resources in the region, the cumulative impact on groundwater resources is considered less than significant. To meet the total water demand for the SOI Amendment Area, it was determined that an additional 5,135 AF/yr of water would be required for full buildout. As discussed in Impacts 4.12-6 and 4.11-2, up to 3,851 AF/yr of groundwater could be extracted without adverse effect to the aquifer assuming that the aquifer is replenished through an in-lieu groundwater

[497] MWH, Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan, Draft January 2003, p.4-2.

[498] Modifications to the model included actual frequency of PCWA transfer of 29,000 AF/yr, revised unit water demand factors and buildout demand, maximum dry-year diversions to Roseville, and land use designation (MWH, Groundwater Impact Analysis for Proposed Reason Farms Land Retirement Plan, Draft January 2003, pp.4-2 to 4-3.

banking program, which is accomplished by the reduction or non-use of groundwater used for agricultural lands currently irrigated with groundwater in the project vicinity. However, this amount would not be sufficient to meet the demand. Additional groundwater extraction to make up the deficit to meet the Remainder Area portion of the SOI Amendment Area demand is not likely to occur, as discussed in Impacts 4.12-6 and 4.11-2. Because it is anticipated that surface water from the Sacramento River Water Reliability Project, not additional groundwater extraction, would be the source of water for the Remainder Area portion of SOI Amendment Area, the SOI Amendment Area's demand on groundwater resources would not be cumulatively considerable. As discussed for the WRSP, with ongoing regional groundwater planning efforts, impacts on groundwater resources would, therefore, be considered **less than significant**.

West Roseville Specific Plan

As discussed in Impact 4.11-2, groundwater would be needed in dry years to meet WRSP water demand. The MOU requires that groundwater impacts of the SOI Amendment be mitigated to a less-than-significant level unless both the County and City agree that specific overriding considerations render mitigation infeasible. MM 4.11-2, identified in Impact 4.11-2 in Section 4.11.2 (Public Utilities, Water), directs that the retirement of irrigated land owned by the City of Roseville (Reason Farms property) or groundwater obtained through an aquifer storage and recovery program be used to offset the dry-year groundwater use of approximately 2,848 AF/yr in the WRSP. Through hydrologic modeling, as discussed in Impact 4.12-6, implementation of this mitigation measure was shown to result in no net increase in groundwater extractions that could, in turn, affect aquifer characteristics. As a result, the WRSP's contribution would not be cumulatively considerable.

In dry years, it is anticipated that groundwater would be used in the City of Roseville and western Placer and northern Sacramento counties to supplement surface water supplies to meet development demands. The WFA EIR concluded that although additional groundwater withdrawals in northern Sacramento County could lower groundwater levels, the groundwater levels would eventually stabilize, resulting in less-than-significant effects on groundwater resources.[499] With the regional efforts to stabilize groundwater levels through increased surface water diversions and/or conjunctive use, as discussed above, and because groundwater would only be used in dry years to supplement supply, the long-term net effect on groundwater resources is not expected to be significant or adverse. Therefore, in combination with the WRSP, cumulative groundwater resources impact would be **less than significant**.

[499] City-County Office of Metropolitan Water Planning, Draft Environmental Impact Report for the Water Forum Proposal (SCH #95082041), January 1999, Impacts 4.2-1 through 4.2-4, pp. 4.2-16 to 4.2-21.

Groundwater Recharge

SOI Amendment Area/West Roseville Specific Plan

Development in the City of Roseville would result in the creation of new impervious surfaces by converting undeveloped, primarily grazing land to urban uses. As discussed in Section 4.8, Hydrology and Water Quality, recharge occurs primarily along stream channels and through applied irrigation water. Further, less than five percent of total recharge to the Sacramento Valley groundwater basin under natural conditions is attributable to Placer County. Much of western Placer County, including the SOI Amendment Area, consists of Hydrologic Group D soils, which are characterized by high runoff and low infiltration potential. The major geologic formations that underlie western Placer County (Riverbank, Turlock Lake, and Mehrten, for example) also impede infiltration of rainwater and irrigation water. Other areas in the City of Roseville and western Placer County are situated on soil and rock units similar to the proposed SOI Amendment Area, and do not have water-intensive irrigation uses. Therefore, Cumulative effects on recharge without the proposed WRSP and SOI are not considered significant.

The SOI Amendment Area is not considered a significant recharge source in the context of a regional source. Therefore, the proposed WRSP and Remainder Area would not contribute substantially to a loss of recharge potential that would be cumulatively considered, and the impact would be **less than significant**.

Aesthetics and Visual Quality

The cumulative context for the evaluation of potential cumulative impacts on visual quality is the City of Roseville and surrounding area within its viewshed.

SOI Amendment

Cumulative development in the City of Roseville and the County of Placer has resulted in the conversion of a primarily rural landscape to urban development, thereby permanently altering the visual character of the area, both during daylight and at night. This trend is anticipated to continue, which would result in a significant and unavoidable cumulative aesthetics impact. In combination with existing and approved development, including Placer Vineyards, Placer Ranch, and the proposed De la Salle/AKT University project to the west, a broad corridor of Placer County, from the Sacramento County line to the City of Lincoln's northern border, would be urbanized. However, nonresidential development in both the WRSP and Remainder Area would be subject to the City's Community Design Guidelines, ensuring that proposed development would be visually compatible with surrounding development. It is also anticipated that any residential development proposed in the Remainder Area would be the subject of a

Specific Plan, including associated design guidelines to ensure visual compatibility with surrounding development. While these measures would reduce the visual effects, the cumulative visual character of the SOI Amendment Area would be permanently and substantially altered, causing a cumulatively considerable contribution to the cumulative aesthetics impact that would be considered **significant and unavoidable**.

West Roseville Specific Plan

The WRSP would contribute to the cumulatively considerable loss of open, undeveloped areas and light and glare in South Placer County, which is considered significant and unavoidable on a cumulative basis. The WRSP includes Design Guidelines for residential development, entrances, and roadways. These guidelines would ensure that development would be visually compatible with surrounding cumulative development. Non-residential development in the WRSP and SOI Amendment Area would be subject to the City's Community Design Guidelines to ensure visual compatibility with surrounding development. While these measures would reduce the visual effects of the WRSP, the visual character of the area would be permanently and substantially altered.

Development in the WRSP would also introduce light into an area that currently has few sources of light. As south Placer County and north Sacramento County continue to develop, lighting will further reduce the visibility of the night sky and increase the spread of lighted areas. Consequently, the nighttime visual quality of the WRSP and surrounding areas would be substantially altered. The conversion of open space, introduction of light and glare sources, and the alteration of the existing landscape, would be widespread. The WRSP would considerably contribute to the cumulative impact, resulting in a **significant and unavoidable** impact.

5.6 MITIGATION MEASURES PROPOSED TO MINIMIZE SIGNIFICANT EFFECTS

Chapter 3 of this EIR, Summary of Environmental Effects, and Sections 4.1 through 4.13 of this EIR provide a comprehensive identification of the proposed project's environmental effects and proposed mitigation measures.

5.7 ALTERNATIVES TO THE PROPOSED PROJECT

Alternatives to the proposed project are presented in Chapter 6, Alternatives, of this EIR.

Chapter 6 ALTERNATIVES

6.1 INTRODUCTION

The purpose of this chapter is to identify and describe the alternatives to the proposed WRSP and Sphere of Influence Amendment. Project alternatives are developed to reduce or eliminate the potentially significant adverse environmental effects identified under the project while still meeting most of the basic project objectives.

6.1.1 California Environmental Quality Act Requirements

An EIR must evaluate a reasonable range of alternatives to the proposed project, or to the location of the proposed project, that could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (CEQA Guidelines, section 15126.6). An EIR need not evaluate the environmental effects of alternatives in the same level of detail as the Proposed Project, but must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project. CEQA provides the following guidelines for discussing alternatives to a proposed project:

- The specific alternative of the "no project" shall also be evaluated along with its impacts....If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines, section 15126.6 subd.(e)(2)).
- The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the proposed objectives, or would be more costly (CEQA Guidelines, section 15126.6 subd.(b)).
- If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed (CEQA Guidelines, section 15126.6 subd.(d)).
- The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice....The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making....An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (CEQA Guidelines, section 15126.6 subd.(f)).

6.2 ALTERNATIVES ANALYZED

The requirement that an EIR evaluate alternatives to the proposed project or alternatives that address the location of the proposed project is a broad one; the primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained while reducing the magnitude of,

or avoiding, the environmental impacts of the proposed project. Alternatives that are included and evaluated in the EIR must be feasible alternatives. However, the Public Resources Code and the CEQA Guidelines direct that the EIR need "set forth only those alternatives necessary to permit a reasoned choice." The CEQA Guidelines provide a definition for "a range of reasonable alternatives" and, thus, limit the number and type of alternatives that need to be evaluated in a given EIR. According to the CEQA Guidelines (Section 15126.6(b)):

> The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project.

First and foremost, alternatives in an EIR must be feasible. In the context of CEQA, "feasible" is defined as:

> …capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Further, the following factors may be taken into consideration in the assessment of the feasibility of alternatives: site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and the ability of the proponent to attain site control (section 15126.6(f)(1)). Finally, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative (Section 15126.b(f)(3))."

The selection of alternatives takes into account the project objectives provided in Chapter 2 (Project Description). The project objectives include creating a comprehensively planned residential community that balances a mix of residential, employment, commercial, industrial, public services, and recreational amenities. The objectives stress the need to provide a safe and efficient circulation system, including a pedestrian and bikeway system, a linked trail system to the City of Roseville, quality open space areas, and necessary public infrastructure. The objectives also state the importance of preserving sensitive habitat and developing a project that includes a mix of uses and facilities that are fiscally feasible and would not adversely impact the City's General Fund.

Equally important to attaining the project objectives is the reduction of some or all significant impacts, particularly those that could not be mitigated to a level below the threshold of significance. The project-specific and cumulative significant and unavoidable impacts of the proposed SOI Amendment, after mitigation, are

SOI, WRSP, and/or Remainder Areas

- Potential incompatibility of internal land uses (WRSP and Remainder Areas)

- Conversion of agricultural land to developed uses (WRSP)
- Inducement of substantial population growth (WRSP and Remainder Areas)
- Increased traffic volumes on state highways (WRSP and Remainder Areas)
- Increased traffic volumes on City of Roseville roadways (WRSP and Remainder Area)
- Increased traffic on Placer County roadways (WRSP and Remainder Area)
- Increased traffic on City of Rocklin roadways (Remainder Area)
- Increased traffic on Sacramento County roadways (Remainder Area)
- Increased congestion due to proposed Pedestrian District Overlay (Remainder Area)
- Increased emissions of fugitive dust and PM_{10} from grading and trenching activities (short term) (WRSP and Remainder Area)
- Increased emissions of ozone precursors during construction (short-term) (WRSP and Remainder Area)
- Increased emission of air pollutants during operation (due to traffic, energy use, woodburning, and so on) (WRSP and Remainder Area)
- Increase in off-site traffic noise (Remainder Area)
- Short-term loss of oak trees (WRSP and Remainder Area)
- Increase in demand for water supply during wet and dry years (Remainder Area)
- Availability of water treatment capacity (Remainder Area)
- Increased demand for solid waste services at the landfill and Material Recovery Facility (MRF) (WRSP and Remainder Area)
- Increase in construction debris (WRSP and Remainder Area)
- Potential loss of historic integrity or removal of historically significant properties (WRSP and Remainder Area)
- Change in visual character (WRSP and Remainder Area)
- New sources of light and glare (WRSP and Remainder Area)

Cumulative

- Agricultural land conversion (WRSP and SOI)
- Traffic impacts to City of Roseville roadways (WRSP and SOI)
- Traffic impacts to State highways (WRSP and SOI)
- Traffic impacts to City of Roseville roadways with Kaiser Medical Center (WRSP and SOI plus Kaiser)

- Traffic impacts to City of Roseville roadways with placer parkway (SOI plus Placer Parkway)
- Construction PM_{10} emissions; (WRSP)
- Other Construction emissions (SOI)
- Operational emissions (WRSP and SOI)
- Water supply (SOI)
- Loss of archaeological, historical, and paleontological resources (WRSP and SOI)
- Light and glare and alteration of visual character (WRSP and SOI)

Each of these impacts is discussed in detail in Chapters 4 and 5 of this EIR. The analysis of alternatives, focuses on significant impacts, including both those that can be mitigated to a less-than-significant level and those that would remain significant even if mitigation is applied. The analysis does address the relative magnitude of less-than-significant impacts, but at a lesser level of detail than significant impacts.

6.2.2 Alternatives Considered and Dismissed from Further Consideration

Consistent with CEQA, primary consideration was given to alternatives that would reduce significant impacts while still meeting most of the project objectives. Those alternatives that would have impacts identical to or more severe than the proposed WRSP or SOI Amendment, or that would not meet most of the project objectives, were rejected from further consideration. The following alternatives were considered but rejected from further analysis:

All residential alternative: One option would be to replace all commercial, business professional, and industrial uses with residential development. This alternative would not be feasible, because no residential development is allowed within 1,000 feet of the PGWWTP. Furthermore, an all residential alternative would have the same effects on physical conditions (e.g., biology, hydrology, cultural resources), because the same acreage would be developed, but would worsen traffic, air quality, and noise impacts, because there would be no internalization of vehicle trips if no commercial and/or employment generating uses were provided.

No residential alternative: Like the "all residential alternative," the "no residential alternative" would have the same physical effects as the proposed WRSP and SOI Amendment because the same acreage would be developed. Similarly, the effects on traffic, air quality, and noise would likely be greater, because there would be little internalization of trips, and there would be residential development only to the west (including the Del Webb Specific Plan, which would not be the source of sufficient employees), and south (where residential densities are very low). A "no residential alternative" would not meet the

project objectives of providing a comprehensively planned residential community with a mix of uses, or of enhancing the City's housing stock, which is expected to be exhausted as early as 2005. Finally, such an alternative would likely have more capacity for industrial or commercial square footage than would be needed to meet demand in the foreseeable future.

Wetland avoidance alternative: One approach to wetland mitigation would be to avoid all wetlands within the SOI Amendment Area. Low concentrations of wetlands are spread throughout the SOI Amendment Area (as shown in Figure 4.7-2). Wetlands have not been delineated in the Remainder Area, so their exact distribution is unknown at this time. The WRSP has been subject to a wetland delineation. As an alternative planning exercise, the areas that could be developed without affecting any wetlands were identified. These areas would form small, isolated, irregularly shaped pockets throughout the planning area without access from one area to another. Development of the small areas of developable land would need to be aggregated into areas of sufficient size to accommodate the project. Infrastructure such as multiple bridge crossings, culverts, and drainage improvements would be necessary to access the development and maintain drainage ways. The infrastructure costs of the development would be prohibitive. A project developed under the wetland avoidance alternative would not include land uses that require large land areas such as regional parks (with active park uses), high school, or the Village Center. A project developed under the wetland avoidance alternative would require some filling of wetlands and additional an unknown number of acres of wetland would still be impacted directly. Additional, indirect impacts could occur as a result of changes to the topography of the areas surrounding the wetlands. Developed areas would alter the current drainage patterns and the current hydrologic regime that maintains the wetlands could be detrimentally altered.

WRSP only alternative: While not addressed specifically in this chapter, the WRSP is analyzed separately throughout Chapters 4 and 5 of this EIR. If the City or LAFCO chose to approve only the WRSP, and not to extend the City's Sphere of Influence to the Remainder Area, those WRSP-specific analyses would serve as CEQA clearance. Therefore, a separate "WRSP only" alternative is not provided in this chapter. Significant impacts of the Remainder Area that would be reduced or eliminated include loss of agricultural land, impacts on local roadways within the City as well as the County, increased air pollutants due to construction, traffic, and operation, exposure of sensitive receptors to unacceptable noise levels, increased traffic noise outside of the SOI Amendment Area, loss of wetlands and other sensitive habitat, increased stormwater runoff, increased demand for services and utilities, damage to or destruction of archaeological resources, and alteration of the Remainder Area's visual character.

Remainder Area only: Development of a majority of the Remainder Area would be feasible only as an extension of the WRSP Area. However, there are some parcels within the Remainder Area that are

adjacent to the City's boundaries in the southern portion. Developing the northern portion of the Remainder Area first would require "leapfrogging" needed infrastructure, which would be costly and growth inducing. In addition, such an alternative would be isolated from other development, forming islands of City development.

Alternate location within the City of Roseville: Most land in the City is already within an approved Specific Plan, is designated park or open space, or carries entitlements. There are no large areas of land within the City that could accommodate the proposed WRSP.

Other locations: Discussed in greater detail below, the Off-Site Alternative assumes that the development proposed within the SOI Amendment, specifically under the WRSP and assumed for the Remainder Area, would occur at Placer Vineyards, located southwest of the SOI Amendment Area, south of Baseline Road. Other off-site alternatives, including alternatives considered in the Section 404 permit application, were also considered, but rejected from further analysis. They include the AKT (Tsakopoulos) property to the west of the SOI Amendment Area, the Remainder Area, and 3,164 acres immediately north of the SOI Amendment Area. The AKT property would create an island in the County, require lengthy extension of infrastructure, and would be unlikely to substantially reduce impacts. The Remainder Area is already considered part of the project and would have similar impacts. The majority of the area to the north of the SOI Amendment Area is restricted from residential use because it is within one mile of the landfill. The area being considered for Placer Ranch, north of the SOI Amendment Area, is in the Sunset Industrial Area, and portions of it are within one mile of the Landfill. Further, the proposed Placer Ranch site is only approximately 2,200 acres, which is less than half the size of the SOI Amendment Area. For these reasons, none of these alternatives appears suitable for additional analysis

6.2.3 Alternatives Considered Within This EIR

As stated above, the purpose of the alternatives analysis is to lessen or avoid significant environmental effects that have been identified in the EIR. A total of five alternatives are evaluated in this Draft EIR.

- **No Project Alternative,** which would encompass both "no development" and "no action," because it is anticipated that no development would occur within the SOI Amendment Area, including the WRSP, if the current land use designations and zoning are retained
- **Open Space Alternative**, in which fewer dwelling units proposed and a greater area of open space is included

- **Increased Intensity Alternative,** with approximately the same number of residential units, at substantially higher densities, and amount of employment-generating uses similar to the WRSP, but on fewer acres, leaving more undeveloped open space
- **Reduced Development Alternative,** which proposes development levels at approximately 80 percent of what was proposed in the SOI Amendment. No development would occur north of the proposed Placer Parkway, which is assumed to be constructed through the WRSP Area under this alternative
- **Off-Site Alternative,** in which the proposed land uses are developed at another location in South Placer County

The following discussion describes the components of the alternatives.

Each of the alternatives is described in more detail, below, followed by an assessment of the alternative's impacts relative to the proposed SOI Amendment, WRSP, and Remainder Area. The focus of this analysis is the difference between the alternatives and the proposed WRSP and SOI Amendment, with an emphasis on significant impacts. For each topical area, the analysis indicates which mitigation measures would not be required of the alternative, and which significant and unavoidable impacts would be avoided. In some cases, the analysis indicates what additional mitigation measures, if any, would be needed under the alternative being discussed, and what significant and unavoidable impacts would be more severe. Unless otherwise indicated, the level of significance and required mitigation would be the same for the alternative as for the proposed WRSP or SOI Amendment and no further statement of the level of significance is made. Table 6-1 provides a summary comparison of the severity of impacts for each alternative by topic and area.

Where possible, the differences in alternatives are quantified in the following tables:

- Table 6-2: Comparison of Alternatives Loss of Agricultural, Biological Resources, and Open Space (Acres)
- Table 6-3: Comparison of Population, Employment, and Housing by Alternative
- Table 6-4: Comparison of Alternatives Construction and Operation Emissions
- Table 6-5: Comparison of Public Services by Alternative
- Table 6-6: Comparison of Public Utilities by Alternative

6.2.4 Alternative 1: No Project Alternative

Under CEQA, the No Project Alternative must consider the effects of forgoing the project. The purpose of analyzing the No Project Alternative is to allow decision-makers to compare the impacts of the proposed

project versus no project. The No Project Alternative describes the environmental conditions that exist at the time that the environmental analysis is commenced (CEQA Guidelines, section 15126.6(e)(2)).

Under the No Project Alternative the entire SOI Amendment Area would remain in its current agricultural use, with a minimum 80-acre farming zone. While as many as 70 farms at 80 acres each could theoretically occupy the SOI Amendment Area, such subdivision of agricultural land is not common in South Placer County. Therefore, it is assumed that no development would occur.

The No Project Alternative does not include a separate analysis of the SOI Amendment because it would be the same as the WRSP and Remainder Area. Therefore, this alternative limits its analysis to the WRSP and Remainder Area to avoid unnecessary repetition.

Table 6-1 Summary Comparison of Alternatives to the Proposed WRSP and SOI Amendment

	Proposed Project			Alternative 1 No Project			Alternative 2 Open Space			Alternative 3 Increased Intensity			Alternative 4 Reduced Development			Alternative 5 Off-site		
	WRSP	Remainder	SOI	WRSP	Remainder	SOI	WRSP	Remainder	SOI	WRSP	Remainder	SOI	WRSP	Remainder	SOI	WRSP	Remainder	SOI
Land Use and Agricultural Resources	SU/ MM	SU/ MM	N/A	NI	NI	N/A	SU/ MM-	SU/ MM-	N/A	SU/ MM-	SU/ MM-	N/A	SU/ MM-	SU/ MM-	N/A	SU/ MM+	SU/ MM+	NA
Population, Employment, and Housing	SU/ MM	SU/ MM	N/A	NI	NI	N/A	SU/ MM-	SU/ MM-	N/A	SU/ MM	SU/ MM	N/A	SU/ MM	SU/ MM	N/A	SU/ MM	SU/ MM	N/A
Transportation	SU/ MM	SU/ MM	SU/ MM	NI	NI	NI	SU/ MM-	SU/ MM-	SU/ MM-	SU/ MM-	SU/ MM-	SU/ MM-	SU/ MM	SU/ MM-	SU/ MM	SU/ MM	SU/ MM	SU/ MM
Air Quality	SU/ MM	SU/ MM	SU/ MM	NI	NI	NI	SU/ MM-	SU/ MM-	SU/ MM-	SU/ MM-	SU/ MM-	SU/ MM	SU/ MM	SU/ MM-	SU/ MM	SU/ MM	SU/ MM	SU/ MM
Noise	LS/ MM	SU/ MM	SU/ MM	NI	NI	NI	SU/ MM-	SU/ MM-	SU/ MM-	SU/ MM+	SU/ MM+	SU/ MM+	SU/ MM-	SU/ MM-	SU/ MM-	SU/ MM	SU/ MM	SU/ MM
Geology, Soils and Seismicity	LS	LS	N/A	NI	NI	N/A	LS-	LS-	N/A	LS-	LS-	N/A	LS-	LS-	N/A	SU	LS+	N/A
Biological Resources	SU/ MM	SU/ MM	N/A	NI	NI	N/A	SU/ MM+	SU/ MM-	N/A	SU/ MM+	SU/ MM-	N/A	SU/ MM-	SU/ MM-	N/A	SU/ MM+	SU/ MM+	N/A
Cultural Resources	SU/ MM	SU/ MM	N/A	NI	NI	N/A	SU/MM+	SU/ MM	N/A	SU/ MM+	SU/ MM-	N/A	SU/ MM-	SU/ MM-	N/A	SU/ MM	SU/ MM+	N/A
Hazardous Materials and Public Safety	LS/ MM	SU/ MM	N/A	NI	NI	N/A	LS/ MM-	LS/ MM-	N/A	LS/ MM-	LS/ MM	N/A	LS/ MM-	LS/ MM-	N/A	LS/ MM	LS/ MM	N/A
Public Services	LS/ MM	LS/ MM	N/A	NI	NI	N/A	LS/ MM-	LS/ MM-	N/A	LS/ MM-	LS/ MM	N/A	LS/ MM-	LS/ MM-	N/A	LS/ MM+	LS/ MM+	N/A
Public Utilities	SU/ MM	SU/ MM	N/A	NI	NI	N/A	SU/ MM-	LS/ MM	N/A	SU/ MM-	SU/ MM	N/A	SU/ MM-	SU/ MM-	N/A	SU/ MM	SU/ MM+	N/A
Hydrology, Water Quality, and Groundwater	LS/ MM	SU/ MM	N/A	NINI	NI	N/A	SU/MM-	SU/ MM-	N/A	SU/ MM-	SU/ MM	N/A	SU/ MM-	SU/ MM-	N/A	SU/ MM	SU/ MM-	N/A
Aesthetics and Visual Resources	SU/ MM	SU/ MM	N/A	NI	NI	N/A	SU/ MM-	SU/ MM-	N/A	SU/ MM-	SU/ MM	N/A	SU/ MM-	SU/ MM-	N/A	SU/ MM	SU/ MM-	N/A

Table 6-1 Summary Comparison of Alternatives to the Proposed WRSP and SOI Amendment

NOTES:

-	= Alternative impacts less severe than the Proposed Project.
+	= Alternative impacts more severe than the Proposed Project.
LS	= All impacts would be less than significant, no mitigation required.
LS/MM	= All impacts would be less than significant after mitigation.
NI	= No impact
SU/MM	= One or more impacts would be significant and unavoidable, even after mitigation.
Same	= Proposed Project and the Alternative impacts identical or very similar
N/A	= Not applicable

SOURCE: EIP Associates 2003

Table 6-2 Comparison of Alternatives Loss of Agricultural, Biological Resources, and Open Space (Acres)

	Proposed Project	Alternative 1: No Project	Alternative 2: Open Space	Alternative 3: Increased Density	Alternative 4: Reduced Development	Alternative 5: Off-site (Placer Vineyards)
Prime Farmland						
WRSP	22.4	0	0	20.4	20.4	33
Remainder Area	0	0	0	0	0	0
Total SOI	***22.4***	***0***	***0***	***20.4***	***20.4***	***33***
Wetlands						
WRSP	32.78	0	9.25	9.25	12.17	Unk.[2]
Remainder Area	Unk.	0	Unk.	Unk.	Unk.	Unk.
Total SOI	***Unk.***	***0***	***Unk.***	***Unk.***	***Unk.***	***Unk.***
Grassland						
WRSP	2,204.6	0	1,183	1,420	Unk.	2,396
Remainder Area	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.
Total SOI	***Unk.***	***Unk.***	***Unk.***	***Unk.***	***Unk.***	***Unk.***
Open Space						
WRSP	684.6	N/A1	1,863.1	1,743.6	705.7	1,863.1
Remainder Area	364.6	N/A1	1,434.6	1,292.52	820.4	1,434.6
Total SOI	***1,049.2***	***N/A1***	***3,297.7***	***3,036.12***	***1,526.1***	***3,297.7***

NOTES:

1. While there would be no "open space" designation under Alternative 1, it is assumed that the entire 5,527 acres would remain in agriculture and undeveloped.
2. All of the Alternative 5 site has not been subject to a wetland delineation so, although impacts to wetlands would occur, no exact numbers can be determined at this time.

SOURCE: EIP Associates 2003

Table 6-3 Comparison of Population, Employment, and Housing by Alternative

	Proposed Project	Alternative 1: No Project	Alternative 2: Open Space	Alternative 3: Increased Density	Alternative 4: Reduced Development	Alternative5: Off-site (Placer Vineyards)
Dwelling Units						
WRSP	8,430	0	4,640	8,430	6,745	8,430
Remainder	7,403	0	3,860	7,400	5,922	7,403
Total SOI Amendment	***15,833***	***0***	***8,500***	***15,830***	***12,667***	***15,833***
Population						
WRSP	20,810	0	11,739	20,561	17,065	20,810
Remainder	18,722	0	9,766	18,722	14,983	18,722
Total SOI Amendment	***39,532***	***0***	***21,505***	***39,283***	***32,048***	***39,532***
Employees						
WRSP	10,622	0	5,846	10,622	8,499	10,622
Remainder	9,328	0	4,864	9,324	7,461	9,328
Total SOI Amendment	***19,950***	***0***	***10,710***	***19,946***	***15,960***	***19,950***
Jobs						
WRSP	3,727	0	2,425	3,380	3,389	3,511
Remainder	4,035	0	1,778	1,778	1,827	4,035
Total SOI Amendment	***7,762***	***0***	***4,203***	***5,158***	***5,216***	***7,546***
Jobs/Housing Ratio[1]						
WRSP	1.63	1.55	1.46	1.38	1.42	1.63
Total SOI Amendment	***1.27***	***1.55***	***1.39***	***1.25***	***1.31***	***1.27***

NOTES:

1. Based on jobs per employee, the Remainder Area is unlikely to develop without the WRSP, so no separate jobs/housing balance is provided.

SOURCE: EIP Associates 2003

Table 6-4 Comparison of Alternatives Construction and Operation Emissions

	Proposed Project/Alternative 5			Alternative 2			Alternative 3			Alternative 4		
	WRSP	Remainder	Total	WRSP	Remainder	Total	WRSP	Remainder	Total	WRSP	Remainder	Total
Construction												
ROG	116.9	118.8	235.7	92.6	60.3	152.9	96.6	63.0	159.6	104.0	71.2	175.2
NO_x	816.2	818.8	1,635.0	719.3	419.8	1,139.2	725.0	423.7	1,148.7	735.5	435.2	1,170.8
CO	118.5	123.6	242.1	61.4	55.8	117.2	72.2	63.1	135.3	92.1	85.0	177.1
PM_{10}	180.6	181.1	361.8	170.7	143.1	313.8	171.8	143.8	315.6	173.8	146.0	319.8
Operation												
ROG	8,225.3	8,238.0	16,463.2	4,870.7	4,066.2	8,936.8	8,747.6	7,621.9	16,369.5	7,129.0	6,088.1	13,217.1
NO_x	1,458.9	1,797.5	3,256.4	992.6	844.3	1,836.9	1,676.4	1,441.7	3,118.1	1,439.2	1,122.3	2,561.4
CO	21,050.2	23,610.7	44,660.9	12,843.2	10,885.4	23,728.6	22,632.4	19,611.3	42,243.7	18,690.7	15,295.7	33,986.3
PM_{10}	1,993.3	2,063.3	4,056.6	1,149.7	961.4	2,111.1	2,047.2	1,792.3	3,839.5	1,665.7	1,411.1	3,076.8

Table 6-5 Comparison of Public Services by Alternative

	Proposed Project	Alternative 1: No Project	Alternative 2: Open Space	Alternative 3: Increased Density	Alternative 4: Reduced Development	Alternative 5: Off-site (Placer Vineyards)
Police Officers (number required)						
WRSP	25	0	13.4	24.6	19.8	25
Remainder	22.5	0	12	22.5	17.7	22.4
Total SOI	***47.4***	***0***	***25.4***	***47.1***	***37.5***	***47.4***
Schools (total students generated)						
WRSP	4,115	0	2,328	4,115	3,551	4,225
Remainder	5,462	0	2,774	5,462	3,605	5,462
Total SOI	***9,577***	***0***	***5,102***	***9,577***	***7,156***	***9,577***
Libraries (number required)						
WRSP	1	0	0	1	1	1
Remainder	1	0	1	1	1	1
Total SOI	***2***	***0***	***1***	***2***	***2***	***2***
Parks (acres required)						
WRSP	187	0	105	40	149	187
Remainder	169	0	84	112	144	169
Total SOI	***356***	***0***	***189***	***152***	***293***	***356***

SOURCE: EIP Associates 2003

Table 6-6 Comparison of Public Utilities by Alternative

	Proposed Project	Alternative 1: No Project	Alternative 2: Open Space	Alternative 3: Increased Density	Alternative 4: Reduced Development	Alternative 5: Off-site
Solid Waste (tons/year)						
WRSP	15,733	0	9,649	15,353	13,452	16,020
Remainder	13,740	0	6,920	12,412	10,430	13,597
Total SOI	***29,473***	***0***	***16,569***	***27,765***	***23,882***	***29,617***
Water (AF/year)						
WRSP	7,042	0	4,002	5,500	6,456	7,042
Remainder	5,431	0	3,086	4,605	5,091	5,431
Total SOI	***12,473***	***0***	***7,088***	***10,105***	***11,547***	***12,473***
Wastewater (mgd)						
WRSP	2.83	0	1.44	2.42	2.31	2.81
Remainder	2.32	0	1.13	2.14	1.82	2.32
Total SOI	***5.15***	***0***	***2.57***	***4.56***	***4.13***	***5.13***
Electricity (MW/year)						
WRSP	60.67	0	26.21	44.32	38.01	60.67
Remainder	59.09	0	23.49	35.84	30.02	59.09
Total SOI	***119.76***	***0***	***49.7***	***80.16***	***68.03***	***119.76***
Natural Gas (Therms/year)						
WRSP	17,751,480	0	9,805,320	18,595,020	15,174,060	17,751,480
Remainder	18,107,880	0	13,005,960	13,944,120	12,610,800	18,107,880
Total SOI	***35,859,360***	***0***	***22,811,280***	***32,539,140***	***27,784,860***	***35,859,360***

SOURCE: EIP Associates 2003

Environmental Impacts

SOI Amendment/WRSP/Remainder Area

None of the impacts identified in Chapters 4 or 5 would occur under the No Project alternative, because the SOI Amendment Area would remain in its present state.

Mitigation That Would No Longer Be Required

None of the mitigation measures identified in this EIR would be required under the No Project alternative.

Significant and Unavoidable Impacts That Would No Longer Occur

None of the significant and unavoidable impacts identified in this EIR would occur under the No Project alternative.

The No Project Alternative would be environmentally superior to the proposed WRSP and SOI Amendment, because none of the environmental impacts identified in Chapter 4 would occur. However, the No Project Alternative would not achieve any of the project objectives except for compatibility with

the PGWWTP 1,000-foot buffer (Objective 5). The No Project Alternative is inconsistent with most of the project alternatives in that it does not include a development project. Most notably, the No Project Alternative is inconsistent with Objective 4 that seeks to meet the City's share of regional housing needs and Objective 2, to increase the City's inventory of developable land. The No Project Alternative may not be fiscally feasible (Objective 12) for the City and land landowners.

6.2.5 Alternative 2: Open Space Alternative

Under the Open Space Alternative, no development would occur north of Pleasant Grove Creek or west of the PGWWTP (see Figure 6-1 [Daily Traffic Volumes Under 2020 Plus SOI Amendment Alternative 2]). Under this alternative, the residential densities would be similar to the densities proposed within the WRSP and Remainder Area, but the amount of development would be substantially reduced because of the smaller area that would be subject to development. The number of residential units would be reduced to 4,640 in the WRSP Area (55 percent of the proposed 8,430) and 3,860 in the Remainder Area (52 percent of the proposed 7,403). Open space would include all of the 100-year flood plain, plus the entire area north of Pleasant Grove Creek and west of the PGWWTP, so Open Space acreage would increase from approximately 685 acres in the WRSP Area to approximately 1,865 acres (a 270 percent increase), and from approximately 346 to 1,435 acres in the Remainder Area (an increase of over 415 percent). While acreage within the Open Space designation would increase, Fiddyment Park would be replaced with residential uses, which would result in the removal of a large section of oak woodland. Under Alternative 2, only non-residential development would occur within 1,000 feet of the PGWWTP.

Table 6-7 shows the land use assumptions for Alternative 2.

Table 6-7 Alternative 2 Open Space

Zoning	Land Use	WRSP		Remainder Area		SOI Amendment Area	
		Acres	DUs	Acres	DUs	Acres	DUs
OS	Open Space	1,863.1		1,434.6		3,297.7	
PR	Park and Recreation	53.4		49.3		102.7	
P/QP	Public/Quasi-Public	28.7		20.0		48.7	
LDR	Low-density Residential	765.5	2,875	655.0	2,620	1,420.5	5,495
LDR	Low-density Residential (Age Restricted)	153.0	745			153.0	745
MDR	Medium-density Residential	25.7	232	55.0	385	80.7	617
HDR	High-density Residential	42.1	788	45.0	855	87.1	1,643
CC	Community Commercial	30.8		30.0		60.8	
BP	Business Professional			21.7		21.7	
LI	Light Industrial	114.2				114.2	
IND	Industrial						
R/W	Road right-of-way	80.9		54.8		135.7	
OS/Paseo	Paseo	4.6				4.6	
	TOTAL	***3,162.0***	***4,640***	***2,365.3***	***3,860***	***5,527.3***	***8,500***

SOURCES: EIP Associates, Morton-Pitalo, 2003

Figure 6-1 Daily Traffic Volumes Under 2020 Plus SOI Amendment Alternative 2

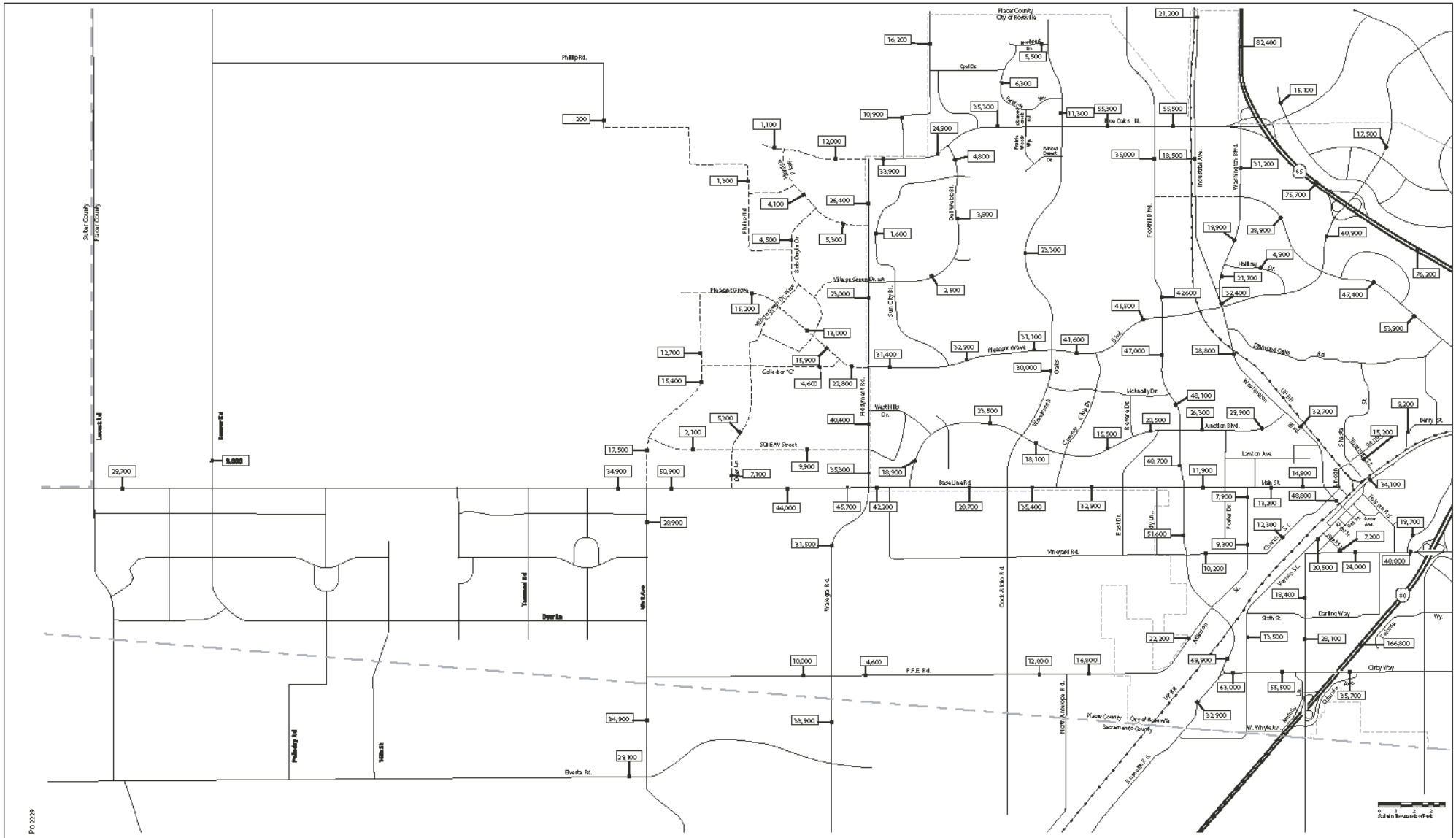


FIGURE **6-1**

Daily Traffic Volumes under 2020 Plus SOI Amendment: Alternative 2

10659-00

Source: DKS Associates

City of Roseville

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Under Alternative 2, there would be two elementary schools within the WRSP Area, and two elementary schools within the Remainder Area. Middle and high school students would attend off-site schools. No high school, Village Center, or regional parks would be developed.

On- and off-site infrastructure would be reduced to the appropriate size to serve levels of development that would occur under Alternative 2.

The laws, ordinances and regulations that are identified in the Regulatory Setting sections of Chapter 4 would be equally applicable to Alternative 2. Similarly, it is assumed that WRSP Design Guidelines and other requirements of the WRSP would be applicable to this alternative, where appropriate.

Land Use and Agricultural Resources

West Roseville Specific Plan

Under Alternative 2, the mix of land uses would be similar to the WRSP. A majority of the proposed development would be residential uses, with large areas of open space north of Pleasant Grove Creek and west of the PGWWTP. Approximately half of the WRSP Area in the northern and western portion would be left in undeveloped open space, including the 20.4 acres of Prime Farmland that would be developed under the proposed WRSP (see Table 6-2).

Under Alternative 2 no development would occur north of Pleasant Grove Creek in the Fiddyment Ranch Property. Therefore, the existing access along Phillip Road would not change so there would be no impact. Furthermore, without the extension of Blue Oaks Boulevard, there would be no need for the City to acquire a portion of the O'Brien property or other property to the north for right-of-way.

Because of the reduced potential for conflicts, the reduction in the amount of farmland that would be converted to urban uses, and the elimination of the less-than-significant impact on access to existing properties, the land use impacts of Alternative 2 would be less severe than under the proposed WRSP.

Mitigation That Would No Longer Be Required

- MM 4.5-6 (Attenuate park noise)
- MM 4.13-1 (a) (Restrict high-watt light usage and hours for parks)

Significant and Unavoidable Impacts That Would No Longer Occur

- Impact 4.1-4: Conversion of agricultural land to developed uses

Remainder Area

The location and configuration of land uses in the Remainder Area have not been determined under the Open Space Alternative. Similar to the proposed Remainder Area assumptions, it is assumed they would be similar to the types and densities of land uses in the WRSP (e.g., residential, commercial). Therefore, future development could include residential land uses near commercial and industrial operations in the WRSP, as well as schools. However, the potential for conflicts would be substantially reduced, because fewer people would live within the Remainder Area.

Because there would be fewer potential conflicts between uses under Alternative 2, its land use impacts would be less severe than under the proposed Remainder Area.

In summary, Alternative 2 would reduce the potential for conflicts between land uses, so the land use impacts would be less severe than under the proposed WRSP.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

No significant and unavoidable land use on agricultural impacts were identified for either portions of the Remainder Area as proposed or under Alternative 2.

Population, Employment, and Housing

West Roseville Specific Plan/Remainder Area

Jobs/Housing Balance/Resolution 83-118

The City's job/housing ratio under Alternative 2 would be 0.89, which is less balanced than the existing ratio, but more balanced than the proposed WRSP ratio of 0.83. Like the proposed WRSP and Remainder Area, Alternative 2 would comply with Resolution 83-118. Enough jobs would be provided within proximity of the WRSP and Remainder Area to satisfy the requirements of this Resolution, which calls for 80 percent of the workers in the City to reside within eight miles of their employment and for 60 percent to live within six miles.

Affordable Housing

Ten percent of residential units would be made affordable under either the proposed WRSP, or Alternative 2, consistent with City policy.

Because the City's jobs/housing balance would be improved compared to the proposed WRSP and Remainder Area, Alternative 2 would have a less severe impact than the proposed WRSP and Remainder Area.

Displacement of Existing Housing

Housing displacement would still occur under this alternative, and impacts would be similar to the proposed WRSP, and **less than significant**.

Inducement Substantial Population Growth

Alternative 2 proposes approximately 50 percent of the development under the WRSP. This decrease would correspondingly decrease the amount of population growth from development. However, even a 50 percent reduction in population growth would constitute a substantial increase, and this impact would remain significant and unavoidable.

Consistency with Adopted City Policies

Alternative 2 would be required to comply with all applicable plans and policies, the same as the proposed WRSP, and this impact would remain less than significant.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

The same significant and unavoidable population, employment, and housing impacts as identified by the proposed WRSP and Remainder Area would occur under Alternative 2.

Transportation and Circulation

Introduction

A quantitative analysis of traffic impacts is provided for Alternative 2, the Open Space Alternative. In order to provide a comparison under worst-case conditions, this analysis is based on 2020 conditions, rather than existing conditions. As discussed in the Chapter 4.3, the 2020 Capital Improvement Program (CIP) Update, with minor modifications, forms the basis for this analysis.

Trip Generation

Trip generation was estimated using the trip generation rates from Roseville's CIP, which are generally consistent with those in the Institute of Transportation Engineers' (ITE) publications on trip generation. As shown in Table 6-8, the initial estimate for Alternative 2 is about 60,025 daily vehicle trips within the WRSP Area. However, about 11,108 of those vehicle trips (about 23 percent) would remain within the WRSP Area (such as travel between the residential development and the retail uses or schools within the WRSP Area). These trips are double-counted in the initial estimate. Eliminating the double-counting yields an estimate of 48,917 daily vehicle trips generated by Alternative 2 (as opposed to the 89,922 daily vehicle trips estimated for the proposed WRSP, or a reduction of approximately 46 percent).

Table 6-8 Estimated Trip Generation WRSP 50% Density Alternative 2 (WRSP Area)

Land Use	Units		Daily Trips per Unit	Daily Trips
Single-Family Residential	3,107	DU	9	27,963
Multi-Family Residential	788	DU	6.5	5,122
Age Restricted Residential	745	DU	3.3	2,459
Subtotal Residential	4,640	DU		35,544
Retail	335.4	KSF	35	11,739
Office	0	KSF	17.7	0
Industrial	1,243.6	KSF	7.6	9,452
Church	71.9	KSF	9.3	668
Subtotal – Private Nonresidential	1,713	KSF		21,859
Public/Quasi Public	61.8	KSF	25	1,545
Elementary School1	1,200	Students	0.8	960
Middle School2	0	Students	0.9	0
High School3	0	Students	1.2	0
Parks	53.4	Acres	2.2	117
Subtotal – Public Uses				**2,622**
Initial Estimate of Total Daily Vehicle Trips Generated by Alternative 2 in WRSP				***60,025***

NOTES: DU = dwelling unit and KSF = 1,000 square feet
- Assumes 600 students per elementary school
- Assumes 1,000 per middle school
- Assumes 1,800 students per high school

SOURCE: DKS Associates 2003

The initial estimate of the trip generation of the SOI Amendment Area under Alternative 2 is about 110,455 daily vehicle trips (see Table 6-9). However, about 21,289 of those vehicle trips (about 24 percent) would remain within the SOI Amendment Area (such as travel between the residential development and the retail uses and schools within the SOI Amendment Area). Eliminating the double-counting yields an estimate of 89,166 daily vehicle trips generated in the SOI Amendment Area under Alternative 2 (compared to the 168,898 daily vehicle trips estimated for the proposed SOI Amendment, a reduction of approximately 47 percent).

Analysis Assumptions

Alternative 2 was evaluated under 2020 conditions. The citywide and regionwide development assumptions under 2020 conditions are discussed in Section 4.3, Traffic and Circulation. The analysis of the 2020 Plus Alternative 2 scenario is based on the assumption that the roadways that are part of the WRSP Area are added to the 2020 CIP roadway network. Improvements to existing roadways (beyond those in the recently adopted CIP) assumed to be in place, include widening Fiddyment Road to four lanes directly adjacent to the WRSP Area (from the north end of the project site to Pleasant Grove Boulevard). For the remainder of the region, the roadway improvements assumed under the 2020 No Project scenario were assumed.

Table 6-9 Estimated Trip Generation Alternative 2 (Remainder Area and Full SOI Amendment Area)

Land Use		Units		Daily Trip Ends per Unit	Daily Trip Ends
Remainder of SOI Amendment Area	Single-Family Residential	3,005	DU	9	27,045
	Multi-Family Residential	855	DU	6.5	5,558
	Subtotal Residential				32,603
	Retail	335	KSF	35	11,739
	Office	284	KSF	17.7	5,019
	Subtotal – Private Nonresidential	1,236	KSF		16,759
	Elementary School1	1,200	Students	0.8	960
	Middle School2	0	Students	0.9	0
	Parks	49.3	Acres	2.2	108
	Subtotal – Public Uses				1,068
Initial Estimate of Total Daily Vehicle Trips from Alternative 2 in Remainder Area					**50,430**
Initial Estimate of Total Daily Vehicle Trips Generated in WRSP Area					**60,025**
Initial Estimate of Total Daily Vehicle Trips of Full SOI Amendment Area					**110,455**
Daily Vehicle Trips with Both Trip Ends within Full Alternative 2					**21,289**
Total Daily Vehicle Trips Generated by Full Alternative 2(adjusted to eliminate double-counting of trips remaining internal to WRSP)					***89,166***

NOTES: DU = dwelling unit and KSF = 1,000 square feet
- Assumes 600 students per elementary school
- Assumes 1,000 per middle school
- Assumes 1,800 students per high school
- See Table 6-8 for trip generation of WRSP under Alternative 2

SOURCE: DKS Associates 2003

The analysis of Alternative 2 (SOI Amendment Area) is based on the assumption that the roadways that are part of the development of the SOI Amendment are added to the 2020 CIP roadway network. The roadway system for the Remainder Area has not been defined, but an assumed roadway system for that area was provided by the City.

It was assumed that with full development of the SOI Amendment under Alternative 2, Fiddyment Road from Pleasant Grove Boulevard to Baseline Road would be annexed into the City of Roseville, so it

would not be part of Placer County's roadway system (refer to Figure 6-2 [Daily Traffic Volumes Under 2020 Plus Project Conditions West Roseville Specific Plan Alternative 2]). Fiddyment Road is assumed to be four lanes directly adjacent to the SOI Amendment Area (from the north end of the project site to Baseline Road). Baseline Road is assumed to be six lanes from Watt Avenue to Fiddyment Road. For the remainder of the region, the roadway improvements assumed under the 2020 No Project scenario were assumed.

The traffic impacts of Alternative 2 within the full SOI Amendment Area and Remainder Area are combined, because the Remainder Area is unlikely to be developed without the WRSP.

SOI Amendment/Remainder Area

City of Roseville Roadways

Daily traffic volumes under Alternative 2 are shown in Figure 6-2. An intersection level-of-service (LOS) analysis was conducted for this scenario. This analysis includes all signalized intersections within the City of Roseville assumed under the 2020 No Project scenario plus signals that would likely be warranted on or adjacent to the SOI Amendment due to development of the SOI Amendment under Alternative 2. A planning-level signal warrant analysis indicates that 11 intersections would require signalization under the 2020 Plus SOI Amendment Open Space Alternative 2 (SOI), compared to 17 under the proposed SOI Amendment.

As shown in Table 6-10, about 72.0 percent of the 161 total signalized intersections would operate at LOS C or better under Alternative 2, compared to 70.1 percent under the proposed SOI Amendment (Impact 4.3-1).

Table 6-10 City Of Roseville Number of Intersections Operating at LOS "C" or Better Alternative 2 (2020 SOI)

Level-of-service	No Project		Proposed SOI		Alternative 2 (SOI)	
LOS A-C	107	71.3%	117	70.1%	116	72.0%
LOS D	23	15.3%	25	15.0%	20	12.4%
LOS E	14	9.3%	16	9.6%	8	11.2%
LOS F	6	4.0%	9	5.4%	7	4.3%
Total Intersections	***150***	***100%***	***167***	***100%***	***161***	***100%***

SOURCE: DKS Associates 2003

Table 6-11, shows the seven intersections that would experience a significant level-of-service impact with buildout of the SOI Amendment Area under Alternative 2, compared to 12 under the proposed SOI Amendment.

Figure 6-2 Daily Traffic Volumes Under 2020 Plus Project Conditions West Roseville Specific Plan Alternative 2

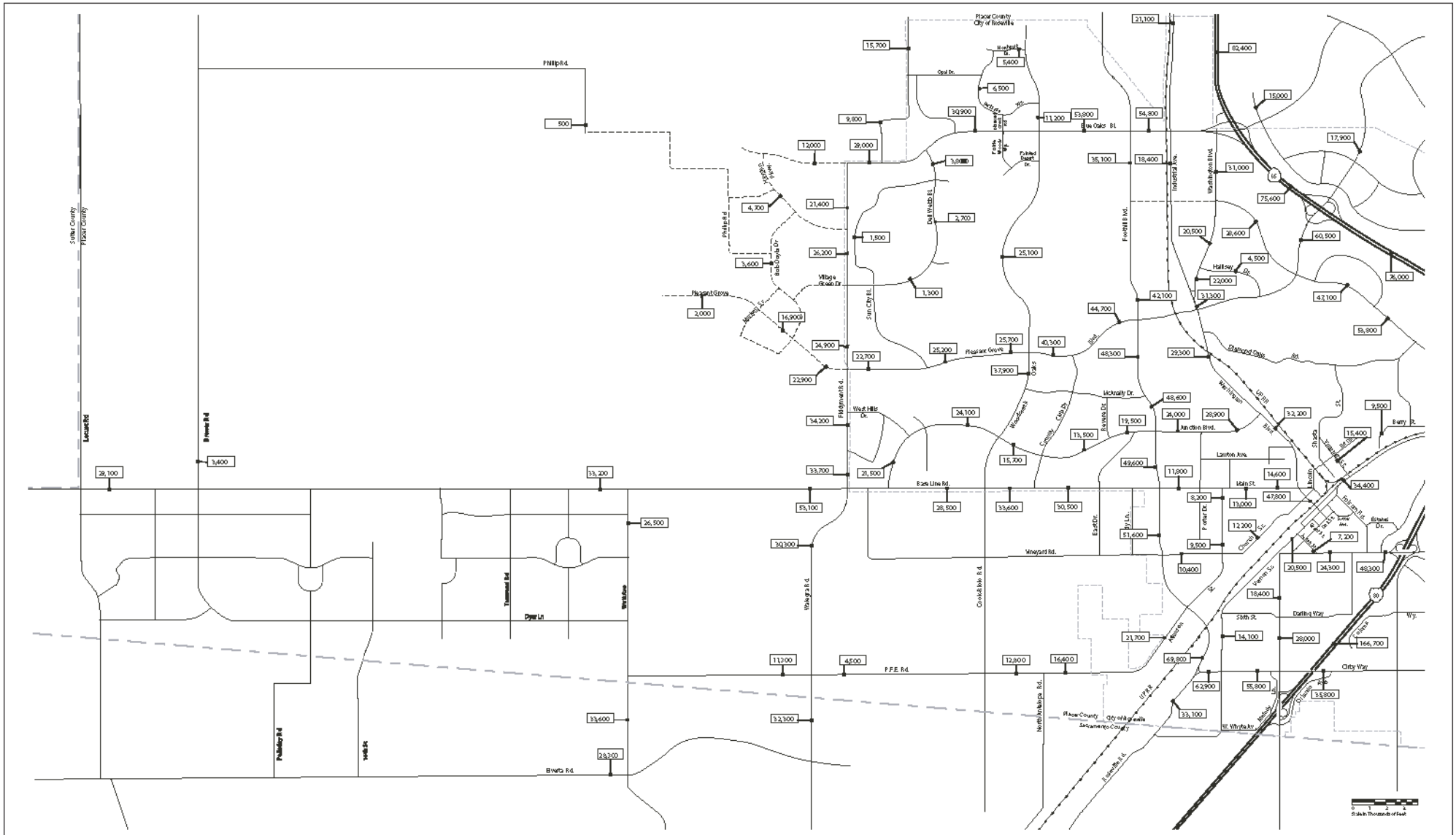


FIGURE 6-2

Daily Traffic Volumes under 2020 Plus Project Conditions: Alternative 2

10659-00

Source: DKS Associates

City of Roseville

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Table 6-11 City of Roseville Intersections With Significant Level-of-Service Impacts Alternative 2 (2020 SOI)

Roadway		No Project		Proposed SOI		Alternative 2 (SOI)	
North/south	East/west	LOS	V/C	LOS	V/C	LOS	V/C
Diamond Creek	Blue Oaks Blvd	A	0.57	F	1.08	C	0.71
Woodcreek Oaks	Blue Oaks Blvd	C	0.71	D	0.84	C	0.73
Vernon St	Cirby Way	E	0.98	F	1.02	E	1.00
Sierra College	Douglas Blvd	D	0.88	E	0.92	D	0.89
Sierra Gardens	Douglas Blvd	C	0.79	D	0.84	D	0.84
Fiddyment Rd	Baseline Rd	D	0.86	E	0.96	E	0.91
Foothills Blvd	Blue Oaks Blvd	C	0.81	F	1.14	F	1.01
Foothills Blvd	Vineyard Rd	D	0.89	E	0.96	E	0.91
Fiddyment Rd	Pleasant Grove	A	0.59	D	0.85	C	0.78
Rocky Ridge Dr	Lead Hill Blvd	D	0.89	D	0.83	E	0.91
Gibson	Roseville Pkwy	C	0.78	D	0.85	C	0.81
Washington Blvd	Junction Blvd	C	0.80	D	0.83	D	0.83
Washington Blvd	Main Street	E	0.98	E	0.91	F	1.07
Watt Ave	Baseline Rd	N/A	N/A	D	0.88	C	0.80

NOTE: Intersections that would experience a significant effect are shaded.
SOURCE: DKS Associates 2003

No feasible improvements were identified at four intersections, compared to seven under the proposed SOI Amendment (see Table 6-12).

Table 6-12 City of Roseville Recommended Mitigations for Intersections Alternative 2 (2020 SOI)

Intersection		Recommended Mitigation	Level-of-service	
North/south	East/west		Before Mitigation	After Mitigation
Fiddyment Rd	Baseline Rd	4.3-1(b) Add 2nd southbound left-turn lane Add 2nd northbound left-turn lane Add 3rd southbound thru lane Add 3rd northbound thru-lane	E	C
Foothills Blvd	Blue Oaks Blvd	4.3-1(c) Add 3rd southbound thru lane Add 3rd northbound left-turn lane Add 4th westbound thru lane	F	C
Sierra Gardens	Douglas Blvd	4.3-1 (e) Add 2nd southbound right-turn lane	D	C
Foothills Blvd	Vineyard Rd	No feasible improvement identified	E	E
Rocky Ridge Dr	Lead Hill Blvd	No feasible improvement identified	E	E
Washington Blvd	Junction Blvd	No feasible improvement identified	D	D
Washington Blvd	Main Street	No feasible improvement identified	F	F
		Percentage of Intersections Citywide Operating at LOS C or Better	**72.0%**	**73.3%**

NOTE: Intersections would experience a significant effect are shaded.
SOURCE: DKS Associates 2003

State Highways

Table 6-13 shows the projected daily traffic volumes and levels of service on State Highways within the City of Roseville under Alternative 2. Table 6-14 provides estimated changes in daily traffic volumes for interchange ramps compared to the project to the State highways within the City, while Table 6-15 provides the peak hour levels of service at intersections between freeway ramps and local roadways in Roseville.

Table 6-13 State Highways Average Daily Traffic Volumes Alternative 2 (2020 SOI Amendment)

Facility	Segment	Lanes	2020 No Project		2020 Proposed SOI		Cumulative Alternative 2 (SOI)	
			ADT	LOS	ADT	LOS	ADT	LOS
I-80	Sac. County line to Riverside Ave	8+2HOV	200,900	F1	202,700	F1	201,000	F1
	Riverside Avenue to Douglas Blvd	6	167,400	F3	167,100	F3	166,800	F3
	Douglas Blvd to Eureka Rd	6	159,800	F2	160,300	F2	159,700	F2
	Eureka Rd to SR-65	8	180,900	F1	181,800	F21	180,500	F2
	SR-65 to Rocklin Rd	6	116,900	E	117,000	E	117,000	E
SR-65	Galleria to Pleasant Grove Blvd	4	75,700	D	77,000	E	76,200	E
	Pleasant Grove Blvd to Blue Oaks Blvd	4	75,300	D	76,200	DE	75,700	E
	Blue Oaks Blvd to Sunset Blvd	4	82,300	F	82,700	F	82,400	F
SR 70/99	North of Riego Road	4	28,800	A	29,000	A	28,700	A
	South of Riego Road	4	52,500	B	52,800	B	51,500	B

NOTES:

Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.

F1 represents LOS "F" conditions for 1 hour during the morning and evening peak commute periods while F2 represents LOS "F" conditions for 2 hours.

Segments that would experience a significant effect operate at LOS "F" or worse are shaded.

SOURCE: DKS Associates 2003

Table 6-14 Interchange Ramps Estimated Change in Average Daily Traffic Volumes SOI Amendment 50% Density Alternative 2 (2020 SOI)

Interchange	Ramps	Estimated Change in Daily Volume Due to Full Proposed SOI Amendment	Estimated Change in Daily Volume Due to Full Alternative 2 (SOI)
I-80 / Riverside Ave	Westbound On from Southbound Riverside Ave	-1470 (11.0%)	-790 (5.9%)
	Westbound On from Northbound Riverside Ave	+760 (16.0%)	+450 (9.5%)
	Westbound Off	-810 (10.5%)	-760 (10.0%)
	Eastbound On	-530 (7.2%)	-130 (1.7%)
	Eastbound Off to Northbound Riverside Ave	-20 (0.2%)	0
	Eastbound Off to Auburn Blvd/Orlando Ave	-500 (3.9%)	-170 (1.4%)
SR-65 / Pleasant Grove Blvd	Northbound On from Eastbound Pleasant Grove	+180 (4.3%)	+530 (12.8%)
	Northbound On from Westbound Pleasant Grove	+340 (16.2%)	+150 (7.0%)
	Northbound Off	+600 (6.9%)	+650 (6.9%)
	Southbound On from Eastbound Pleasant Grove	+370 (5.5%)	+720 (10.8%)
	Southbound On from Westbound Pleasant Grove	+510 (17.5%)	+490 (16.9%)
	Southbound Off	+630 (9.7%)	+1,110 (17.1%)
SR-65 / Blue Oaks Blvd	Northbound On	+450 (3.6%)	+100 (0.8%)
	Northbound Off to Eastbound Blue Oaks Blvd	+320 (13.3%)	+140 (0.8%)
	Northbound Off to Westbound Blue Oaks Blvd	+490 (5.1%)	+80 (5.1%)
	Southbound On from Eastbound Blue Oaks Blvd	+700 (7.8%)	+290 (3.2%)
	Southbound On from Washington Blvd	-430 (16.1%)	-570 (21.4%)
	Southbound Off	+110 (0.8%)	-450 (3.3%)

SOURCE: DKS Associates 2003

I-80 between SR-65 and Sacramento/Placer County line and SR-65 through Roseville would operate at LOS F conditions during peak hours (see Impact 4.3-2) with or without the alternative, which would increase traffic on some State highway segments by as much as 500 vehicles per day, compared to 1600 vehicles under the proposed SOI Amendment. As shown in Table 6-15, all intersections with State highway ramps would operate at LOS A or C under either Alternative 2 or the SOI Amendment.

Table 6-15 Intersections With State Highway Ramps Level-of-Service Alternative 2 (2020 SOI)

	No Project		Proposed Project		Alternative 2 (SOI)	
Location	LOS	V/C	LOS	V/C	LOS	V/C
Riverside Ave and I-80 WB Off ramp	A	0.44	A	0.44	A	0.44
SR-65 NB Off ramp and Blue Oaks Blvd	B	0.68	C	0.70	B	0.70
SR-65 NB Off ramp and Pleasant Grove	A	0.54	A	0.54	A	0.55
SR-65 SB Off ramp and Pleasant Grove	A	0.51	A	0.51	A	0.50
Washington Blvd/SR-65 SB Off and Blue Oaks Blvd	B	0.66	B	0.68	B	0.70
I-80 WB Off-ramp and Douglas Blvd	C	0.81	C	0.79	C	0.78
I-80 WB On-ramp and Atlantic St	C	0.75	C	0.73	C	0.73
SR-65 NB On-ramp and Stanford Ranch Blvd	B	0.68	B	0.69	B	0.68
SR-65 SB On-ramp and Stanford Ranch Blvd/Galleria Blvd	C	0.73	C	0.75	C	0.74
I-80 WB Off-ramp/Taylor Rd and Eureka Rd	E	0.94	E	0.91	E	0.91

SOURCE: DKS Associates 2003

Placer County Roadways

Table 6-16 shows the projected daily traffic volumes on Placer County roadways for the 2020 Plus SOI Amendment Open Space Alternative 2. The roadway segment level-of-service analysis (summarized in Table 6-16) indicates that development of the SOI Amendment under the Alternative 2 would cause service levels on two roadway segments to worsen, compared to three segments under the proposed SOI Amendment.

Table 6-16 Placer County Average Daily Traffic Volumes and Levels of Service Alternative 2 (2020 SOI)

Roadway	Location	Assumed Lanes in 2020	2020 No Project		2020 Proposed (Project)		2020 Alternative 2 (SOI)	
			ADT	LOS	ADT	LOS	ADT	LOS
Baseline Road	Sutter Co. to Tanwood	4	29,300	D	30,200	D	29,800	D
	Tanwood to Watt Ave	6	32,700	B	36,500	B	34,900	B
	Watt Ave to Fiddyment	6	53,700	E	46,300	D	45,800	D
Fiddyment Road	Baseline Rd to Pleasant Grove Blvd	4	33,300	E	N/A[1]	N/A[1]	N/A[1]	N/A[1]
	Roseville City Limits to Sunset Blvd	2	12,900	C	16,000	D	13,600	C
Walerga Road	Baseline Road to PFE Road	4	27,700	C	33,4000	E	31,300	D
Watt Avenue	Baseline Road to PFE Road	4	27,800	C	36,100	F	31,300	D
Phillip Road	WRSP to Brewer Road	2	300	A	3,000	A	300	A

NOTES:

Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-3. Segments that would experience a significant effect operate at LOS "D" or worse are shaded.

1. Roadway segment would be within City limits under this scenario.

SOURCE: DKS Associates 2003

It was estimated that the Open Space Alternative would not increase traffic on Phillip Road west of the SOI Amendment Area, unlike the proposed SOI Amendment.

An intersection level-of-service analysis, summarized in Table 6-17, shows that Alternative 2 would result in significant impacts at two Placer County intersections (Fiddyment Road/Baseline Road and Sierra College Boulevard/Douglas Boulevard), compared to three intersections under the proposed SOI Amendment.

Table 6-17 Placer County Intersections Levels of Service Alternative 2 (2020 SOI)

Roadway		No Project		Proposed SOI		Alternative 2 (SOI)	
North/south	East/west	LOS	V/C	LOS	V/C	LOS	V/C
Watt Avenue	PFE Road	C	0.73	D	0.88	D	0.82
Watt Avenue	Baseline Road	C1	0.73	E1	0.98	D1	0.87
Pleasant Grove Dr	Baseline Road	D	0.87	E	0.92	D	0.90

NOTES: All intersections assumed to be signalized by 2020Segments that would experience a significant effect are shaded.1

Level-of-service analysis for this intersection is based on modified Circular 212 capacities used by Roseville for its CIP

SOURCE: DKS Associates 2003

SOI Amendment/Remainder Area

Sacramento County Roadways

Table 6-18 shows the projected daily traffic volumes on Sacramento County roadways for Alternative 2. The roadway segment level of service analysis indicates that development of the SOI Amendment under Alternative 2 would cause service levels on two roadway segments to worsen, compared to three segments under the proposed SOI Amendment. However, neither is considered a significant impact based on Sacramento County's LOS policy. The one segment that was identified as a significant impact under the proposed SOI Amendment would not be an impact with Alternative 2.

Table 6-18 Sacramento County Average Daily Traffic Volumes and Levels of Service Alternative 2 (2020 SOI Amendment)

Roadway	Location	Assumed Lanes in 2020	No Project		Proposed SOI		Alternative 2 (SOI)	
			ADT	LOS	ADT	LOS	ADT	LOS
Watt Avenue	Placer Co Line to Elverta Rd	4	33,500	E	36,200	F	34,900	E
Walerga Road	Placer Co Line to Elverta Rd	4	31,200	D	34,800	E	33,900	E
Elverta Road	West of Watt Ave	4	28,100	C	29,000	D	29,100	D

NOTES:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.
SOURCE: DKS Associates, 2003.

West Roseville Specific Plan

Sacramento County Roadways

Table 6-19 shows the projected daily traffic volumes on Sacramento County roadways for Alternative 2. The roadway segment level of service analysis indicates that development of Alternative 2 would eliminate the deterioration of Walerga Road from LOS D to LOS E caused by the Proposed Project.

Table 6-19 Sacramento County Average Daily Traffic Volumes and Levels of Service Alternative 2 (2020 WRSP)

Roadway	Location	Assumed Lanes in 2020	No Project		Proposed WRSP		Alternative 2 (WRSP)	
			ADT	LOS	ADT	LOS	ADT	LOS
Watt Avenue	Placer Co Line to Elverta Rd	4	33,500	E	34,100	E	33,600	E
Walerga Road	Placer Co Line to Elverta Rd	4	31,200	D	33,200	E	32,300	D
Elverta Road	West of Watt Ave	4	28,100	C	28,200	C	28,300	C

NOTES:
Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.
SOURCE: DKS Associates, 2003.

City of Rocklin Roadways

Table 6-20 shows that the projected daily traffic volumes on roadways in the City of Rocklin under Alternative 2. Both Alternative 2 and the proposed SOI Amendment would worsen the service level on one segment of Sunset Boulevard from LOS C to LOS D, and would increase traffic volumes at another segment already operating at LOS D.

Table 6-20 Rocklin Roadways Average Daily Traffic Volumes and Levels of Service Alternative 2 (2020 SOI)

Roadway	Location	Assumed Lanes in 2020	No Project		Proposed SOI		Alternative 2 (2020 SOI)	
			ADT	LOS	ADT	LOS	ADT	LOS
Sunset Blvd	SR-65 to W. Stanford Ranch	6	27,100	A	28,900	A	29,500	A
	W. Stanford Ranch W. Oaks	6	40,800	C	40,500	C	41,600	C
	W. Oaks to Park	6	40,900	C	41,900	C	42,500	C
	Park to Stanford Ranch	6	42,200	C	43,300	D	43,600	D
	Stanford Ranch to Whitney Blvd	6	40,700	C	41,700	C	41,700	C
	Whitney Blvd to Pacific Ave	6	46,900	D	47,500	D	47,100	D
Park Drive	Roseville City limits to Sunset Blvd	4	17,500	A	17,600	A	17,400	A
Blue Oaks Blvd	Route 65 to Lone Tree Blvd	6	37,000	B	39,800	C	40,500	C
	Lone Tree Blvd to Sunset Blvd	4	25,600	C	26,200	C	26,300	C
Stanford Ranch Rd	Fairway Dr to Sunset Blvd	6	28,000	A	28,400	A	28,200	A

NOTES: Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9. Segments that would experience a significant effect are shaded.

SOURCE: DKS Associates 2003

Sutter County Roadways

Table 6-21 shows the projected daily traffic volumes on selected roadways in Sutter County under the Open Space Alternative would be similar to the proposed SOI Amendment, and would not result in unacceptable service levels at any of the study intersections.

Table 6-21 Sutter County Comparison of Average Daily Traffic Volumes Alternative 2 (2020 SOI)

Roadway	Assumed Lanes in 2020	No Project		Proposed SOI		Alternative 2 (SOI)	
		ADT	LOS	ADT	LOS	ADT	LOS
Riego Road	6	25,600	A	26,000	A	26,400	A
Sunset West/Howsley Road	2	5,900	A	6,500	A	5,800	A
Catlett Road	2	200	A	100	A	200	A

NOTES: Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.

SOURCE: DKS Associates 2003

Bicycles

Alternative 2 would require safe and convenient pedestrian/bicycle facilities for residents and employees of the SOI Amendment Area, similar to the proposed SOI Amendment. However the demand for and extent of these facilities would be reduced due to the reduction in residences and employment uses.

Transit

As with the proposed SOI Amendment, Alternative 2 would require extension of transit services; however, the demand would be reduced because fewer residences and businesses would be located within the SOI Amendment Area.

Pedestrian District Overlay

Alternative 2 does not include a Village Center, so a General Plan amendment to create a Pedestrian District policy would not be proposed, and a resulting potential impact on traffic congestion would not occur.

Mitigation That Would No Longer Be Required

- MM 4.3-1(a): Improvements to Diamond Creek/Blue Oaks Boulevard intersection
- MM 4.3-1(d): Improvements to Woodcreek Oaks/Blue Oaks Boulevard
- MM 4.3-1(f): Improvements to the Watt Avenue/Baseline Road intersection
- MM 4.3-4(a): Improvements to Fiddyment Road
- MM 4.3-4(g): Improvements at the Pleasant Grove Drive/Baseline Road intersection

Significant and Unavoidable Impacts That Would No Longer Occur

All of the significant and unavoidable impacts that would occur under the proposed SOI Amendment also would occur under Alternative 2 the WRSP, although the severity of those impacts would be reduced, because of the reduction in traffic.

West Roseville Specific Plan

City of Roseville Roadways

The City's travel demand model was used to estimate the change in daily and p.m. peak hour traffic volumes on roadways throughout the City of Roseville and in surrounding communities due to development of Alternative 2 under 2020 conditions. The daily traffic volumes within the City under Alternative 2 scenario are shown in Figure 6-2.

An intersection level-of-service analysis was conducted for this scenario. This analysis includes all signalized intersections within the City of Roseville assumed under the 2020 No Project scenario plus additional signals that would likely be warranted in or adjacent to the WRSP Area due to implementation of Alternative 2 (Impact 4.3-1). A planning-level signal warrant analysis indicates that the following seven intersections would require signalization under Alternative 2, compared to eight intersections that would require signalization under the proposed WRSP:

- Within WRSP Area
  - Fiddyment Road and Blue Oaks Boulevard (relocated intersection)
  - Fiddyment Road and Hayden Parkway South
  - Blue Oaks Boulevard and Hayden Parkway
  - Blue Oaks Boulevard and Fiddyment Rd (North)
  - Pleasant Grove Boulevard and Bob Doyle Drive
  - Pleasant Grove Boulevard and Market Street
- Outside WRSP Area
  - Fiddyment Road and Westhills Drive

Table K-2 in Appendix K provides the estimated levels of service for all signalized intersections in the City of Roseville under 2020 No Project and 2020 Plus Alternative 2 conditions. This table includes new intersections that would warrant signals under 2020 Plus Alternative conditions.

As shown in Table 6-22, under 2020 Plus Alternative 2 conditions, 111 signalized intersections would operate at LOS C or better, which represents about 71.2 percent of the 156 total signalized intersections, compared to 70.9 percent under the proposed WRSP.

Table 6-22 City of Roseville Comparison of Number of Intersections Operating at LOS "C" or Better Alternative 2 (2020 WRSP)

Level-of-service	No Project		Proposed WRSP		Alternative 2 (2020 WRSP)	
LOS A-C	107	71.3%	112	70.9%	111	71.2%
LOS D	23	15.3%	22	13.9%	24	15.4%
LOS E	14	9.3%	17	10.8%	15	9.6%
LOS F	6	4.0%	7	4.4%	6	3.8%
Total Intersections	***150***	***100%***	***158***	***100%***	***156***	***100%***

SOURCE: DKS Associates 2003

Table 6-23 shows the four intersections that would experience a significant level-of-service impact with buildout of Alternative 2 under 2020 conditions; in comparison, eight intersections would have significant deterioration under the proposed WRSP.

Table 6-23 City of Roseville Comparison of Intersections With Significant Level-of-Service Impacts Alternative 2 (2020 WRSP)

Roadway	Roadway	Cumulative No Project		Cumulative Proposed WRSP		Cumulative Alternative 2 (WRSP)	
North/south	East/west	LOS	V/C	LOS	V/C	LOS	V/C
Diamond Creek	Blue Oaks Blvd	A	0.57	E	0.923	B	0.68
Fiddyment Rd	Baseline Rd	D	0.86	E	0.91	D	0.89
Foothills Blvd	Blue Oaks Blvd	C	0.81	F	1.034	E	0.96
Fiddyment Rd	Pleasant Grove	A	0.59	D	0.85	C	0.80
Gibson	Roseville Parkway	C	0.78	D	0.82	C	0.81
Lincoln Street	Vernon Street	D	0.90	E	0.93	D	0.90
Washington Blvd	Junction Blvd	C	0.80	D	0.84	D	0.82
Washington Blvd	Main street	E	0.98	E	0.97	F	1.02

NOTE: Intersections that operate at LOS "D" or worse would experience a significant effect are shaded.
SOURCE: DKS Associates 2003

No feasible improvements were found at two intersections under Alternative 2, compared to three intersections under the proposed WRSP (see Table 6-24).

Table 6-24 City of Roseville Recommended Mitigations for Intersections Alternative 2 (2020 WRSP)

Intersection	Recommended Mitigation		Before	After
North/south	East/west	Level-of-service	Mitigation	Mitigation
Foothills Blvd	Blue Oaks Blvd	5-34.3-2(c) Add 3rd southbound thru lane Add 3rd northbound left-turn lane Add 4th westbound thru lane	F	C
Washington Blvd	Junction Blvd	No feasible improvement identified	D	D
Washington Blvd	Main Street	No feasible improvement identified	F	F
		Percentage of Intersections Citywide Operating at LOS C or Better	71.2%	71.8%

NOTES: Intersections that would experience a significant effect operate at LOS "D" or worse are shaded.
SOURCE: DKS Associates 2003

State Highways

Table 6-25 shows the projected daily traffic volumes and levels of service on State Highways in the vicinity of the WRSP Area under Alternative 2. Table 6-26 provides estimated change in daily traffic volumes for interchange ramps to the State highways within the City, while Table 6-27 provides the peak hour levels of service at intersections between freeway ramps and local roadways in Roseville. The analysis assumes that all of the 2020 transportation improvements contained in the Metropolitan Transportation Plan (MTP) would be implemented, including the widening of I-80 to accommodate HOV lanes between Madison Avenue and the Sacramento/Placer County line and construction of the State Route 65 Lincoln Bypass.

Table 6-25 State Highways Comparison of Average Daily Traffic Volumes Alternative 2 (2020 WRSP)

Facility	Segment	Lanes	Cumulative No Project		Cumulative Plus Proposed WRSP		Cumulative Plus Alternative 2 (2020 WRSP)	
			ADT	LOS	ADT	LOS	ADT	LOS
I-80	Sac. County line to Riverside Ave	8+2HOV	200,900	F1	201,400	F1	200,800	F1
	Riverside Avenue to Douglas Blvd	6	167,400	F3	166,400	F3	166,700	F3
	Douglas Blvd to Eureka Rd	6	159,800	F2	159,900	F2	159,600	F2
	Eureka Rd to SR-65	8	180,900	F1	181,900	F1	181,400	F1
	SR-65 to Rocklin Rd	6	116,900	E	117,000	E	116,900	E
SR-65	Galleria to Pleasant Grove Blvd	4	75,700	D	76,300	E	76,000	E
	Pleasant Grove Blvd to Blue Oaks Blvd	4	75,300	D	75,900	D	75,600	D
	Blue Oaks Blvd to Sunset Blvd	4	82,300	F	82,500	F	82,400	F
SR 70/99	North of Riego Road	4	28,800	A	28,700	A	28,800	A
	South of Riego Road	4	52,500	B	51,300	B	50,800	B

NOTES: Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-7□F1 represents LOS "F" conditions for 1 hour during the morning and evening peak commute periods while F2 represents LOS "F" conditions for 2 hours. Segments that would experience a significant effect operate at LOS "F" or worse are shaded.

SOURCE: DKS Associates 2003

Table 6-26 Interchange Ramps Estimated Change in Average Daily Traffic Volumes Alternative 2 (2020 WRSP)

Interchange	Ramps	Estimated Change in Daily Volume Due to Proposed WRSP	Estimated Change in Daily Volume Due to Alternative 2 (2020 WRSP)
I-80 / Riverside Ave	Westbound On from Southbound Riverside Ave	-680 (5.0%)	-630 (4.7%)
	Westbound On from Northbound Riverside Ave	0	+740 (15.7%)
	Westbound Off	-1460 (19.0%)	-600 (7.9%)
	Eastbound On	-220 (0.4%)	-680 (9.2%)
	Eastbound Off to Northbound Riverside Ave	0	-20 (0.2%)
	Eastbound Off to Auburn Blvd/Orlando Ave	+630 (4.9%)	+340 (2.7%)
SR-65 / Pleasant Grove Blvd	Northbound On from Eastbound Pleasant Grove	+230 (5.5%)	+350 (8.4%)
	Northbound On from Westbound Pleasant Grove	+290 (13.9%)	+250 (11.9%)
	Northbound Off	+480 (5.6%)	+540 (6.3%)
	Southbound On from Eastbound Pleasant Grove	+40 (0.6%)	+220 (3.2%)
	Southbound On from Westbound Pleasant Grove	+420 (14.4%)	+540 (18.7%)
	Southbound Off	+510 (7.8%)	+800 (12.4%)
SR-65 / Blue Oaks Blvd	Northbound On	+250 (2.0%)	+420 (3.4%)
	Northbound Off to Eastbound Blue Oaks Blvd	0 (0%)	+360 (14.9%)
	Northbound Off to Westbound Blue Oaks Blvd	+410 (4.3%)	+180 (1.8%)
	Southbound On from Eastbound Blue Oaks Blvd	+590 (6.5%)	+420 (4.6%)
	Southbound On from Washington Blvd	-840 (31.9%)	-840 (31.7%)
	Southbound Off	-530 (3.8%)	-510 (3.7%)

SOURCE: DKS Associates 2003

Table 6-27 Comparison of Interchange Ramp Operations Alternative 2 (2020 WRSP)

Location	No Project		Plus Proposed WRSP		Plus Alternative 2 (2020 WRSP)	
	LOS	V/C	LOS	V/C	LOS	V/C
Riverside Ave and I-80 WB Off ramp	A	0.44	A	0.44	A	0.44
SR-65 NB Off ramp and Blue Oaks Blvd	B	0.68	C	0.71	B	0.69
SR-65 NB Off ramp and Pleasant Grove	A	0.54	A	0.54	A	0.55
SR-65 SB Off ramp and Pleasant Grove	A	0.51	A	0.50	A	0.51
Washington Blvd/SR-65 SB Off and Blue Oaks Blvd	B	0.66	B	0.69	B	0.65
I-80 WB Off-ramp and Douglas Blvd	C	0.81	C	0.78	C	0.79
I-80 WB On-ramp and Atlantic St	C	0.75	C	0.72	C	0.73
SR-65 NB On-ramp and Stanford Ranch Blvd	B	0.68	B	0.69	B	0.68
SR-65 SB On-ramp and Stanford Ranch Blvd/Galleria Blvd	C	0.73	C	0.74	C	0.73
I-80 WB Off-ramp/Taylor Rd and Eureka Rd	E	0.94	E	0.91	E	0.91

SOURCE: DKS Associates 2003

The estimated 2020 development levels under the adopted General Plans of Roseville and surrounding jurisdictions would increase traffic volumes on State highways within the City of Roseville (Impact 4.3-2). The poor level of service anticipated on both I-80 and SR-65 under 2020 conditions would exist with or without Alternative 2 or the proposed WRSP. On some segments, Alternative 2 would reduce traffic levels relative to the proposed WRSP, so this impact would be less severe.

Placer County Roadways

Table 6-28 shows the projected daily traffic volumes on Placer County roadways under Alternative 2. These daily volumes were estimated by the City of Roseville's travel demand model. The analysis assumes that those improvements to Placer County's roadways that were included in the Sacramento Area Council of Government's (SACOG's) Metropolitan Transportation Plan (MTP) for 2020 would be implemented (Impact 4.3-3). This includes the widening of Baseline Road from Fiddyment Road to west of Watt Avenue to six lanes and the remainder of Baseline Road to the Sutter County line to four lanes, plus the widening of both Watt Avenue and Walerga Road from two or four lanes between Baseline Road and the Sacramento/Placer County line.

As shown in Tables 6-28 and 6-29, Alternative 2 would impact Placer County roadways and intersections very similar to, although slightly less severe than, the proposed WRSP, with two roadway segments, Walerga Road and Watt Avenue between Baseline Road and PFE Road, worsening from LOS C to LOS D.

Alternative 2 would increase traffic on Phillip Road from a very low volume (about 300 vehicles per day) to about 600 daily vehicles, compared to 5,400 under the proposed WRSP. Unlike the WRSP, Alternative 2 would not increase traffic enough to cause a significant impact.

Table 6-28 Placer County Comparison of Average Daily Traffic Volumes and Levels of Service Alternative 2 (2020 WRSP)

Roadway	Location	Assumed Lanes in 2020	Cumulative No Project		Cumulative Plus Proposed WRSP		Cumulative Plus Alternative 2 (2020 WRSP)	
			ADT	LOS	ADT	LOS	ADT	LOS
Baseline Road	Sutter Co. to Tanwood	4	29,300	D	29,700	D	29,100	D
	Tanwood to Watt Ave	6	32,700	B	32,500	B	33,200	B
	Watt Ave to Fiddyment	6	53,700	E	52,400	E	53,100	E
Fiddyment Road	Baseline Rd to Pleasant Grove Blvd	4	33,300	E	33,500	E	33,700	E
	Roseville City Limits to Sunset Blvd	2	12,900	C	14,200	C	13,100	C
Walerga Road	Baseline Road to PFE Road	4	27,700	C	30,600	D	30,300	D
Watt Avenue	Baseline Road to PFE Road	4	27,800	C	29,000	D	27,900	D
Phillip Road	WRSP to Brewer Road	2	300	A	5,200	A	600	A

NOTES:

Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9. Segments that would experience a significant effect operate at LOS "D" or worse are shaded.

1 Roadway segment would be within City limits under this scenario.

SOURCE: DKS Associates 2003

Table 6-29 Placer County Comparison of Intersections Levels of Service Alternative 2 (2020 WRSP)

Roadway		No Project		Plus WRSP		Plus Alternative 2 (2020 WRSP)	
North/south	East/west	LOS	V/C	LOS	V/C	LOS	V/C
Walerga Road	PFE Road	F	1.06	F	1.02	F	1.05
Watt Avenue	PFE Road	C	0.73	C	0.76	C	0.76
Watt Avenue	Baseline Road	C1	0.73	C1	0.75	C1	0.76
Pleasant Grove Dr	Baseline Road	D	0.87	D	0.88	D	0.89

NOTES: All intersections assumed to be signalized by 2020Segments that would experience a significant effect are shaded.1

Level-of-service analysis for this intersection is based on modified Circular 212 capacities used by Roseville for its CIP.

SOURCE: DKS Associates 2003

City of Rocklin Roads

Table 6-30 shows the projected daily traffic volumes on roadways in the City of Rocklin under Alternative 2. These daily volumes were estimated by the City of Roseville's travel demand model. The analysis assumes that those improvements to Rocklin's roadways that were included in Rocklin's 2020 CIP, plus the roadways in the City's proposed Northwest Annexation Area, would be implemented (see Impact 4.3-4). As shown in Table 6-30, neither Alternative 2 nor the proposed WRSP would cause any of Rocklin's roadways to degrade to LOS D or worse conditions.

Table 6-30 Rocklin Roadways Comparison of Average Daily Traffic Volumes and Levels of Service Alternative 2 (2020 WRSP)

Roadway	Location	Assumed Lanes in 2020	No Project		Proposed WRSP		Alternative 2 (2020 WRSP)	
			ADT	LOS	ADT	LOS	ADT	LOS
Sunset Blvd	SR-65 to W. Stanford Ranch	6	27,100	A	30,000	A	29,200	A
	W. Stanford Ranch W. Oaks	6	40,800	C	41,400	C	41,200	C
	W. Oaks to Park	6	40,900	C	43,400	C	42,500	C
	Park to Stanford Ranch	6	42,200	C	44,300	C	43,000	C
	Stanford Ranch to Whitney Blvd	6	40,700	C	42,300	C	41,000	C
	Whitney Blvd to Pacific Ave	6	46,900	D	47,800	D	46,900	D
Park Drive	Roseville City limits to Sunset Blvd	4	17,500	A	17,500	A	17,900	A
Blue Oaks Blvd	Route 65 to Lone Tree Blvd	6	37,000	B	41,500	C	39,700	C
	Lone Tree Blvd to Sunset Blvd	4	25,600	C	26,200	C	26,200	C
Stanford Ranch Rd	Fairway Dr to Sunset Blvd	6	28,000	A	29,200	A	28,500	A

NOTES: Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.Segments that would experience a significant effect are shaded.

SOURCE: DKS Associates 2003

Sutter County Roadways

Table 6-31 shows the projected daily traffic volumes on selected roadways in Sutter County under the 2020 Plus Open Space Alternative. These daily volumes were estimated by the City's travel demand model under 2020 Conditions, buildout of Phase 1 of the South Sutter County Specific Plan was assumed by 2020. Therefore, this analysis also assumes that the Phase 1 improvements to Sutter County roadways that were included in the Draft South Sutter County Specific Plan would be implemented by 2020, including a widening of Riego Road to six lanes and construction of an interchange at SR 70/99 and Riego Road (see Impact 4.3-5). As shown in Table 6-31, neither Alternative 2 nor the proposed WRSP would cause roadways in Sutter County to operate at unacceptable service levels.

Table 6-31 Sutter County Comparison of Average Daily Traffic Volumes Alternative 2 (2020 WRSP)

Roadway	Assumed Lanes in 2020	Cumulative No Project		Cumulative Proposed WRSP		Cumulative Alternative 2 (2020 WRSP)	
		ADT	LOS	ADT	LOS	ADT	LOS
Riego Road	6	25,600	A	27,400	A	25,700	A
Sunset West/Howsley Road	2	5,900	A	6,900	A	6,000	A
Catlett Road	2	200	A	100	A	300	A

Notes: Roadway segment levels of service (LOS) are based on roadway capacities and LOS criteria in Table 4.3-9.

SOURCE:DKS Associates, 2003.

Bicycles

Alternative 2 would result in a substantial demand for safe and convenient pedestrian/bicycle facilities by residents and employees of the WRSP for primarily transportation-related purposes. As with the WRSP, it is anticipated that Alternative 2 would provide a network of Class I and Class II bikeways to allow travel throughout the WRSP Area and provide linkage to the City's planned bikeway system (Impact 4.3-7).

Transit

There is currently one transit route in the vicinity of the WRSP Area. As discussed in Impact 4.3-8, the City's Long Range Transit Master Plan (LRTMP) did not anticipate development of the WRSP and thus did not include future service to the WRSP Area. The 4,640 residential dwelling units and the nonresidential uses that would be developed in the WRSP under the Open Space Alternative would generate significant transit demand, although less demand than under the proposed WRSP. In addition, transit service would not have to be expanded as far under Alternative 2, because there would be no development north of Pleasant Grove Creek.

Pedestrian District Overlay

Alternative 2 does not include a Village Center, so a General Plan Amendment to create a Pedestrian District policy would not be proposed, and a resulting potential impact on traffic congestion would not occur.

Mitigation That Would No Longer Be Required

- MM 4.3-2 (a): Improvements at intersection of Diamond Creek and Blue Oaks Boulevard
- MM 4.3-3 (c): Improvements to Phillip Road

Significant and Unavoidable Impacts That Would No Longer Occur

- Impact 4.3-1: Unacceptable service levels at:
  - Washington Boulevard/Junction Boulevard
  - Gibson/Roseville Parkway

New Mitigation Required for Alternative 2 Only

None.

New Significant and Unavoidable Impact

- Impact 4.3-2: Unacceptable service level at Sierra College/Douglas Boulevard.

Air Quality

SOI Amendment Area

Construction Emissions

As shown in Table 6-4, emissions of all pollutants would continue to exceed Placer County Air Pollution Control District (PCAPCD) thresholds under this alternative, although the amount would be substantially reduced compared to the proposed SOI Amendment. PM_{10} emissions would be reduced by approximately 14 percent, and ROG, NO_x, and CO emissions would be 36, 30, and 52 percent lower, respectively, than the proposed SOI Amendment on a daily basis (Impacts 4.4-1 and 4.4-2).

Operational Emissions

Operational emissions associated with the Open Space Alternative would be lower than under the proposed SOI Amendment Area (see Impact 4.4-3), because less development would occur. Under Alternative 2, total operational emissions are estimated to be 46 percent lower for ROG, 44 percent lower for NOx, 47 percent for CO, and 48 percent for PM10 (see Table 6-4).

Toxic Air Contaminants (TACs)

Under Alternative 2, potential TAC emissions would be increased, because light industrial uses would replace the high school and most of the regional park to the east of the PGWWTP. At the same time, the number of residents who would be exposed to TACs would be substantially reduced as a result of the reduction in residential uses within the SOI Amendment Area (Impact 4.4-4). The impact, however, would continue to be less than significant after mitigation.

Other Emissions

As with the proposed SOI Amendment, local CO emissions (Impact 4.4-5) and odor impacts (Impact 4.4-6) would be less than significant.

In summary, air quality impacts would be substantially reduced under Alternative 2, because the amount of development would be less than under the proposed SOI Amendment.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

The significant and unavoidable impacts identified for the proposed SOI Amendment would also occur under Alternative 2, although the severity of the impacts would be substantially reduced because of the reduction in development levels.

West Roseville Specific Plan

Construction Emissions

Under Alternative 2, PM_{10} emissions from construction would be reduced by 5 percent, but would still exceed PCAPCD thresholds (Impact 4.4-1). Daily emissions would be reduced by 21 percent for ROG, 22 percent for NOx, and 44 percent for CO (Impact 4.4-2).

Operational Emissions

Operational emissions associated with Alternative 2 would also be substantially lower than those associated with the proposed WRSP, because the amount of development would be reduced by almost one-half. Total operational emissions for this Alternative are estimated to be reduced by 41 percent for ROG, 32 percent for NOx, 39 percent for CO and 43 percent for PM_{10}.

Toxic Air Contaminants

The Open Space Alternative 2 would result in a 44 percent reduction in the number of residents in the WRSP Area who could be exposed to TACs from the Pleasant Grove Wastewater Treatment Plant (PGWWTP), and other sources in the vicinity (Impact 4.4-4). At the same time, the amount of industrial uses would increase from approximately 74 acres to 114 acres, because the high school and most of the regional park would be replaced by industrial uses under Alternative 2. The impact, however, would continue to be less than significant after mitigation.

Other Emissions

As with the proposed WRSP, local CO emissions (Impact 4.4-5) and odor impacts (Impact 4.4-6) would be less than significant.

Overall, air quality impacts would be substantially reduced under Alternative 2.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

The significant and unavoidable impacts identified for the proposed WRSP would also occur under Alternative 2, although the severity of the impacts would be substantially reduced because of the reduction in development levels.

Remainder Area

Construction Emissions

As indicated in Table 6-4, construction PM_{10} would be reduced by 21 percent in the Remainder Area under Alternative 2 (Impact 4.4-1). Other construction emissions (Impact 4.4-2) would be reduced by 49, 53, and 44 percent (for ROG, NOx and CO, respectively).

Operational Emissions

Operational emissions (Impact 4.4-3) would be reduced under Alternative 2 by 51 to 54 percent compared to development within the proposed Remainder Area assumptions (see Table 6-4).

Other Emissions

As with the proposed WRSP, local CO emissions (Impact 4.4-5), odor impacts (Impact 4.4-6) and TACs (Impact 4.4-4) would be less than significant.

In summary, air quality impacts would be substantially reduced under Alternative 2, because the amount of development would be less than under the proposed Remainder Area.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

The significant and unavoidable impacts identified for the proposed Remainder Area would also occur under Alternative 2, although the severity of the impacts would be substantially reduced because of the reduction in development levels.

Noise

SOI Amendment

Construction Noise

As with the proposed SOI Amendment, construction activities could occur in proximity to sensitive receptors, primarily residences under Alternative 2 (see Impact 4.5-1). However, there would be less construction activity, and fewer residents to be exposed to construction noise under Alternative 2.

Commercial and Industrial Noise

Under Alternative 2, the SOI Amendment Area is assumed to include a variety of land uses, including residential, commercial, and industrial. The location of some of these uses has not been determined, but similar to the proposed SOI Amendment, industrial and commercial uses could be located adjacent to residential areas. Similar to the proposed SOI Amendment, noise levels could exceed City standards at some residences (see Impacts 4.5-2 and 4.5-3) under Alternative 2. However, because fewer people would reside in the SOI Amendment Area under Alternative 2, the impact would be less severe than under the proposed SOI Amendment.

Schools

Under Alternative 2, schools would be constructed within the SOI Amendment Area (Impact 4.5-4). However, no high schools would be constructed, so there would be no stadium or related noise. The magnitude of the less-than-significant impact would be reduced under Alternative 2, because the high school, stadium, and soccer fields would not be constructed. In addition, middle or high school students in the WRSP and Remainder Area would be required to attend existing schools in the City. Increased attendance at existing schools could exacerbate any overcapacity problems in the School District. In addition, the increased student population at existing City schools could result in potentially significant impacts to air quality, noise, and traffic due to increase traffic volumes and redistribution of trips. These impacts, as with the physical impacts resulting from future school facilities, would require separate project-level environmental analysis for CEQA compliance.

Park-related Noise

No regional parks, soccer fields, or amphitheatres would be located in the SOI Amendment Area under Alternative 2, so there would be no noise associated with these uses (Impact 4.5-5).

Traffic Noise

Under Alternative 2, less traffic would be generated than under the proposed SOI Amendment, but noise levels would still be expected to exceed 60 Ldn along some roadways. In addition, fewer people would be exposed to traffic noise (Impact 4.5-5). Development of the SOI Amendment Area under Alternative 2 would increase traffic noise on roadways outside of the SOI Amendment Area (Impact 4.5-9). Because traffic levels would be substantially lower, the increase would likely be under 3 dB, which is considered the threshold for hearing a noticeable difference in noise levels (Impact 4.5-9). At the same time, however, off-site traffic noise could cause the City's noise contours to change, so that residences that are currently within the 60 dB Ldn noise contour could be subjected to noise levels above 60 dB Ldn (Impact 4.5-10). This impact would be similar to, but less severe, under the proposed SOI Amendment, because there would be less traffic.

Other Noise Sources

Under Alternative 2, noise impacts from construction (Impact 4.5-1), the PGWWTP (Impact 4.5-6), and fire stations (Impact 4.5-7) would be similar to the proposed SOI Amendment, but less severe, because fewer people would be exposed.

Mitigation That Would No Longer Be Required

- MM 4.5-6: Attenuate Park Noise (WRSP)
- MM 4.5-7: Park Noise Policies (Remainder)

Significant and Unavoidable Impacts That Would No Longer Occur

All of the significant and unavoidable impacts identified for the proposed SOI Amendment would occur under Alternative 2, but the impacts would be less severe because of the reduction in traffic (and associated traffic noise), and the lower number of residents who would be exposed to unacceptable noise levels.

West Roseville Specific Plan

Construction Noise

As with the proposed WRSP, construction activities could occur in proximity to sensitive receptors, primarily residences, under Alternative 2 (see Impact 4.5-1). However, there would be less construction activity, and fewer residents to be exposed to construction noise under Alternative 2.

Commercial and Industrial Noise

As shown in Figure 6-2, the mix of land uses under Alternative 2 would be similar to the proposed WRSP, but the amount would be reduced substantially and the distribution would change. Commercial uses would still be located adjacent to residential areas at the intersections of Blue Oaks Boulevard and Fiddyment Road and Pleasant Grove Boulevard and Fiddyment Road. Light industrial uses would remain south of the PGWWTP and would replace the high school and regional park to the east of the PGWWTP. These industrial areas would be immediately adjacent to residential uses. With the exception of the industrial area south of the PGWWTP, all of these industrial and commercial areas could generate noise that exceeds City standards at the nearby residential uses (Impacts 4.5-2 and 4.5-3). As with the proposed WRSP, six-foot soundwalls would be provided in most of these areas. These walls may not be adequate to ensure that noise levels at adjacent residences meet City standards. The impact would be similar in magnitude to the proposed WRSP, because the number of areas where residential and commercial or industrial uses are proximate would be similar.

Schools

Under Alternative 2, there would be no high school within the WRSP Area, so there would be no stadium. There would be two elementary schools, so outdoor playground areas would be the only source of substantial noise (Impact 4.5-4). This impact would be substantially less severe under this alternative, because there would be no high school, which would be the primary source of school-related noise under the proposed WRSP. In addition, middle or high school students in the WRSP and Remainder Area would be required to attend existing schools in the City. Increased attendance at existing schools could exacerbate any overcapacity problems in the school district. In addition, the increased student population at existing City schools could result in potentially significant impacts to traffic noise due to increase traffic volumes and redistribution of trips. These impacts, as with the physical impacts resulting from future school facilities, would require separate project-level environmental analysis for CEQA compliance.

Park-Related Activities

Under Alternative 2, there would be no regional parks, so no soccer fields or amphitheatre would be constructed (Impact 4.5-5).

Traffic Noise

Under Alternative 2, project-related traffic would decrease by approximately 41,000 trips, or 46 percent. If this percentage could be applied to volumes on particular roadways, then traffic noise could be

expected to decrease by a similar amount. A fifty percent reduction in traffic would reduce traffic noise by approximately 3 dBA. Noise levels along the roadways listed above, in most cases, would still exceed 60 dBA at 100 feet, so adjacent residences could be exposed to unacceptable noise levels (Impact 4.5-8). In addition, the increase in traffic could extend the noise contours above 60 dB L_{dn} into existing and planned residential areas outside of the WRSP (Impacts 4.5-9 and 4.5-10), although it would be less severe than under the proposed WRSP, because less traffic would be generated under this alternative.

Other Noise Sources

Other sources of noise affecting the proposed WRSP would be the PGWWTP (Impact 4.5-6), fire station (Impact 4.5-7), construction activities (Impact 4.5-1) and traffic (Impact 4.5-9). Noise from these uses would not exceed City standards under either Alternative 2 or the proposed WRSP, although fewer residents would be exposed under the alternative.

Mitigation That Would No Longer Be Required

- MM 4.5-6: Attenuate Park Noise.

Significant and Unavoidable Impacts That Would No Longer Occur

The same significant and unavoidable impacts would occur, but they would be less severe under Alternative 2.

Remainder Area

Construction Noise

As with the proposed WRSP, construction activities could occur in proximity to sensitive receptors, primarily residences, under Alternative 2 (see Impact 4.5-1). However, there would be less construction activity, and fewer residents to be exposed to construction noise under Alternative 2.

Commercial and Industrial Noise

Like the proposed WRSP, the Remainder Area is assumed to include a variety of land uses, including residential, commercial, and industrial. The exact location of these uses has not yet been determined, but similar to the WRSP, industrial and commercial uses could be located adjacent to residential areas. Therefore, like the impacts associated with the proposed Remainder Area, noise levels under this alternative could exceed City standards at some residences (see Impacts 4.5-2 and 4.5-3). As with the proposed Remainder Area assumptions, there would be no industrial uses in the Remainder Area, so there would not be any industrial-related noise (Impact 4.5-3).

Schools

Under Alternative 2, one or more schools are likely to be constructed within the Remainder Area (Impact 4.5-4). As with the proposed Remainder Area, the City cannot compel the school districts to implement mitigation measures. However, the magnitude of the impact would be substantially reduced under Alternative 2, because there would be fewer residents. In addition, middle or high school students in the WRSP and Remainder Area would be required to attend existing schools in the City. Increased attendance at existing schools could exacerbate any overcapacity problems in the school district. In addition, the increased student population at existing City schools could result in potentially significant impacts to traffic noise due to increase traffic volumes and redistribution of trips. These impacts, as with the physical impacts resulting from future school facilities, would require separate project-level environmental analysis for CEQA compliance.

Park-Related Noise

No regional parks, soccer fields, or amphitheatres would be located in the Remainder Area under Alternative 2, so park noise would not be expected to exceed City standards (Impact 4.5-5).

Traffic Noise

Under Alternative 2, noise levels would still be expected to exceed 60 L_{dn} along some roadways, even though traffic levels would be lower than those under the proposed Remainder Area (Impact 4.5-8). The impact would be less severe than under the proposed Remainder Area assumptions, because noise levels would be lower, and fewer people would be exposed to traffic noise.

Under the proposed Remainder Area assumptions, portions of the existing street system noise levels would increase at existing roadways (see Impact 4.5-9). With a 47 percent reduction in traffic, the severity of this impact would be reduced under Alternative 2, and would not be expected to increase noise levels by more than 3 dB L_{dn}. However, the City's noise contours would change as the result of Alternative 2 (Impact 4.5-10). The severity of this impact would be reduced under this alternative, because of the reduction in traffic.

Other Noise Sources

Under Alternative 2, no development would be located west or north of the PGWWTP, and residential uses to the south and east would be adequately buffered from PGWWTP noise (Impact 4.5-6). As discussed above, construction and fire station noise are exempt due to the Noise Ordinance, and would occur sporadically (see Impacts 4.5-1 and 4.5-7). For these reasons, noise from construction, fire stations and the PGWWTP would be less-than-significant impacts.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

The significant and unavoidable noise impacts identified for the proposed Remainder Area would also occur under Alternative 2, although the severity of the impacts would be substantially reduced because of the reduction in development levels.

Geology, Soils, and Seismicity

WRSP/Remainder Area

Alternative 2 would be subject to the same soil and geologic conditions, and would have to comply with the same laws, regulations, and City Improvement Standards as the Proposed Project WRSP and SOI Amendment. Impacts from implementation of Alternative 2 would be less severe than under the proposed WRSP or SOI Amendment, because less development would occur and fewer people would be exposed to soils and geologic constraints.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None significant and unavoidable impacts would occur under either Alternative 2 or the proposed WRSP or SOI Amendment.

Biological Resources

West Roseville Specific Plan

Loss of Federally Protected Wetlands and "Other Waters" of the United States

Under Alternative 2, the amount of open space would increase substantially. No development would occur north of Pleasant Grove Creek or west of the PGWWTP. There would be an increase in the acreage of designated open space areas from 684.6 acres under the WRSP to 1,863.1 acres. This open space area would include all of the 100-year flood plain and the entire area north of Pleasant Grove Creek, and west of the PGWWTP. As a result, there would be a substantial reduction in the acreage of impacts to federally protected wetlands and "other" waters of the U.S. compared to the WRSP (Impact 4.7-1). Furthermore, a crossing over Pleasant Grove Creek to accommodate Blue Oaks Boulevard would no longer be needed.

Although there would be a substantial reduction, impacts on wetlands still occur under Alternative 2. Loss of federally protected wetlands and "other" waters of the U.S. would include 9.25 acres of vernal pools, as well as wet swales and channels, seasonal wetlands, and emergent wetlands, compared to 23.24 acres under the proposed WRSP.

Loss or Degradation of Habitat for Wetlands Species

Under Alternative 2, wetland habitat would likely be destroyed and/or degraded (Impacts 4.7-2, 4.7-3, and 4.7-4). There would be a substantial increase (almost three-fold) in open space under Alternative 2, and no development would occur in the 100-year flood plain, north of Pleasant Grove Creek, or west of the PGWWTP. Nonetheless, the impacts of development described above would still occur under this alternative, but at a smaller scale than under the proposed WRSP. Potential habitat loss would include 9.25 acres of vernal pools, as well as other wetlands (Impacts 4.7-2, 4.7-3, and 4.7-4). Because fewer acres of habitat would be disturbed, this impact would be substantially less severe under Alternative 2.

Disturbance to Nesting Raptors

Under Alternative 2, the impacts on nesting raptors would be similar to the proposed WRSP (Impact 4.7-5). Construction activity would still occur in areas adjacent to Pleasant Grove Creek and the oak woodland southwest of the Blue Oaks/Fiddyment intersection. However, the number of trees to be removed would be greater under this alternative because the oak grove in Fiddyment Park would be developed as low-density residential under this alternative. Although other areas that could result in the removal of oaks would be eliminated, there would be no need to bridge Pleasant Grove Creek to access the area north of the creek or for the extension of Blue Oaks Boulevard to the west, because no development would occur north of the creek. Nonetheless, this impact would be greater than under the proposed WRSP.

Loss of Annual Grassland Habitat

Under Alternative 2, the loss of annual grasslands would be substantially lower than under the proposed WRSP. Designated open space areas would increase from 684.6 acres under the proposed WRSP to 1,863.1 acres under Alternative 2. This open space consists primarily of annual grasslands, the preservation of which would represent a substantial reduction in the loss of annual grassland habitat over the proposed WRSP. Alternative 2 would result in the loss of up to 1,182.6 acres of annual grasslands, compared to an estimated 2,361 acres under the proposed WRSP (Impact 4.7-6).

Wildlife Movement Corridors

Under Alternative 2, no development would occur north of Pleasant Grove Creek or west of the PGWWTP, resulting in a substantial increase in open space. In addition to reducing the overall acreage of habitat loss, the development that would occur as a result of Alternative 2 would be confined within smaller boundaries. Not only would this result in fewer stream crossings and fewer urban barriers, but there would be a reduction in the degree of fragmentation, as the remaining habitat will remain contiguous with off-site open space. Some stream crossings would still be necessary under this alternative (Impact 4.7-7). However, because of the reduction in development, the impact would be less severe than under the proposed WRSP.

Loss of Oak Trees

Under Alternative 2, the removal of native oak trees would occur on a larger scale compared to the WRSP because the grove of oak trees in Fiddyment Park under the WRSP would be impacted due to development under this alternative (Impact 4.7-8). The Tree Preservation chapter in the City's Zoning Ordinance requires the replacement of protected trees that are removed. In the long-term, the replacement trees would mature and replace the value of the trees that were lost.

Loss of Riparian Habitat

Under Alternative 2, there would be an increase in the acreage of designated open space. Although this change would negate the need to have a crossing over Pleasant Grove Creek, there would still be a need to cross Kaseberg Creek and some of the tributaries of both Kaseberg Creek and Pleasant Grove Creek (Impact 4.7-9). Additionally, other alterations could still occur as part of stormwater drainage outlets. However, because fewer stream crossings would be required, the impact would be less severe under Alternative 2.

Off-site Infrastructure

Off-site infrastructure would be required for Alternative 2, but the improvements would be smaller than required for the proposed WRSP (Impact 4.7-10). Roadway and water conveyance lines would need to be extended, but the second Pleasant Grove Creek bridge would not be required.

General Plan Policies

The WRSP proposes an amendment to the City's General Plan Open Space Policy 10, which would allow flood control facilities in open space areas, such as the detention basins proposed for Kaseberg Creek. Such facilities could destroy or degrade habitat during grading and other ground disturbance. Under

Alternative 2, this policy would also be included for City consideration (Impact 4.7-11). The impacts of this policy would be reduced under Alternative 2, because if flood control facilities were needed in the floodplain, they would be smaller, because the amount of runoff would be reduced.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Significant and Unavoidable Impacts that would be more Severe under Alternative 2

The short-term significant and unavoidable loss of oak trees would be a more severe impact under Alternative 2, because the oak woodland would be developed (Impact 4.7-8).

None.

Remainder Area

Loss of Federally Protected Wetlands and "Other Waters" of the United States

Although no wetland delineations or special-status species surveys have been conducted for the Remainder Area, the habitat potential is considered similar to the WRSP Area. The Remainder Area is estimated to contain approximately 50 acres of wetlands. Under Alternative 2, impacts on wetlands and "other" waters of the U.S. would likely occur as a result of such development, because of the dispersion of potential wetlands in the Remainder Area, but the magnitude of the impact would be reduced due to the reduction in area to be disturbed (Impact 4.7-1).

Loss or Degradation of Habitat for Wetlands Species

Under Alternative 2, future development in the Remainder Area would be substantially reduced relative to the proposed SOI Amendment, which would reduce the potential for wetlands to be lost or degraded (Impacts 4.7-2, 4.7-3 and 4.7-4), because fewer acres of habitat would be disturbed.

Disturbance to Nesting Raptors

Under Alternative 2, the impacts on nesting raptors would be similar to the proposed Remainder Area, because construction activity would still occur in areas most likely to contain nests, such as adjacent to Pleasant Grove Creek and the oak woodland southwest of the Blue Oaks/Fiddyment intersection (Impact 4.7-5). Under this alternative, the number of trees to be removed would likely be more than was assumed

under the SOI Amendment because the oak grove present in Fiddyment Park would be impacted. However, under this alternative there would be no need to construct a bridge across Pleasant Grove Creek to access the area north of the creek, because no development would occur north of the creek. Therefore, this impact would be slightly less severe than under the SOI Amendment proposed Remainder Area.

Loss of Annual Grassland Habitat

Under Alternative 2, the loss of annual grasslands would be substantially reduced, because the amount of open space would increase to 1,434.6 acres from 365 acres under the proposed Remainder Area (Impact 4.7-6).

Wildlife Movement Corridors

Under Alternative 2, there would be fewer stream crossings and other urban barriers to wildlife movement, because development would occur only south of Pleasant Grove Creek and east of the PGWWTP (Impact 4.7-7). In addition, there would be a reduction in the degree of fragmentation, as the remaining habitat would remain contiguous with off-site open space. Some stream crossings would still be necessary under this alternative. Because of the reduction in development, this impact would be less severe than if development were to occur over the entire SOI Amendment Remainder Area.

Loss of Oak Trees

Under Alternative 2, the increase in open space would not reduce the number of native oak trees that would need to be removed for project construction (Impact 4.7-8), as most of the native oaks are located south of Pleasant Grove Creek. The Tree Preservation chapter in the City's Zoning Ordinance requires the replacement of protected trees that are removed. In the long term, the replacement trees would mature and replace the value of the trees that were lost.

Loss of Riparian Habitat

While Alternative 2 would reduce development in the Remainder Area by approximately half compared to the proposed SOI Amendment Remainder Area, stream crossings for roadways and infrastructure would still be needed along some creeks (Impact 4.7-9). Because fewer stream crossings would be required, this impact would be less severe under Alternative 2.

Off-site Infrastructure

The amount of off-site infrastructure needed to serve Alternative 2 would be substantially reduced compared to if development were to occur over the entire Remainder Area, because only half as much

development would occur (Impact 4.7-10). Roadway and water conveyance lines would need to be extended, but the second Pleasant Grove bridge would not be required, and there would be enough water to serve the entire SOI Amendment Area without water from the Sacramento River or other source. Consequently, the potential impacts on biological resources due to site-site construction would be substantially reduced.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

The significant and unavoidable impacts on biological resources identified for the proposed Remainder Area would also occur under Alternative 2, although the severity of the impacts would be substantially reduced because of the reduction in development levels.

Cultural Resources

Significant and Unavoidable Impacts That Would Be More Severe under Alternative 2

- Impact 4.8-2: Removal of historically significant properties and/or loss of historic integrity of such resources.

West Roseville Specific Plan

Archaeological Resources

An unrecorded prehistoric site in the northern end of the WRSP Area had been reported previously, but was not found during the recent field survey, possibly due to the extent of groundcover. This prehistoric site was located near Pleasant Grove Creek (see Impact 4.8-1). The creek and its floodplain are designated open space under either Alternative 2 or the proposed WRSP, so the site is not expected to be disturbed by future development. Alternative 2 is expected to result in fewer impacts to archeological resources in general, because less land would be developed or disturbed.

Historic Properties

Based on the Land Use Plan for Alternative 2, retention of the Fiddyment Ranch complex appears highly unlikely since park uses are no longer proposed under this alternative. This would increase the likelihood that structures would be demolished or moved, resulting in a significant impact, in comparison to the WRSP, which includes developed land uses that closely surround, but do not overlay, the Fiddyment Ranch Site.

Paleontological Resources

Alternative 2 would substantially reduce the amount of land that would be developed in the WRSP Area (from 2,477 acres to 1,299 acres), and could therefore reduce the likelihood of encountering paleontological resources during development, compared to the proposed WRSP.

Off-site Infrastructure

Certain components of Alternative 2 would be constructed off site, similar to infrastructure anticipated for the proposed WRSP, such as roads, electrical infrastructure, water and sewer lines, and water tanks. In most cases, off-site infrastructure would be located within existing or planned roadway rights-of-way, and the potential for cultural resources to occur would have been addressed during the planning of those roads (see Impact 4.8-4). The impacts of Alternative 2 would be similar to the proposed WRSP, because even with less development, water, sewer, and other utility lines would need to be extended to the WRSP site, and off-site roadway improvements would be required, as indicated in the discussion of Transportation and Circulation impacts.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

All of the significant and unavoidable cultural resource impacts that would occur under the proposed WRSP would also occur under Alternative 2. For Impacts 4.8-1, 4.8-3 and 4.8-4, the impacts would be less severe under Alternative 2, because substantially fewer acres would be subject to disturbance.

Significant and Unavoidable Impacts that Would be More Severe under Alternative 2

- Impact 4.8-2: Removal of historically significant properties and/or loss of historic integrity of such resources.

Remainder Area

Archaeological Resources

Under Alternative 2, development in the Remainder Area would be substantially reduced, and approximately 930 acres of currently undeveloped grassland would be converted to urban uses, preserving approximately 1,435 acres of open space (see Impact 4.8-1). Therefore, the potential to disturb archaeological resources would be reduced.

Historic Properties

Because the Remainder Area has not been surveyed, it is not known whether it contains any historic resources. Development within the Remainder Area could affect historic resources, if present, through removal, relocation, reuse, and/or substantially altering the context in which the historic resources occur (see Impact 4.8-2). Due to the increased amount of open space under this alternative, chances of encountering historic resources may be slightly reduced compared to the proposed Remainder Area.

Paleontological Resources

Under Alternative 2, development in the Remainder Area would be substantially reduced, and approximately 930 acres of currently undeveloped grassland would be converted to urban uses, preserving approximately 1,435 acres of open space. . The increased amount of open space provided by this alternative could reduce the likelihood of encountering paleontological resources during development (see Impact 4.8-3).

Off-site Infrastructure

Under Alternative 2, construction and installation of site-site improvements could result in disturbance of historic or prehistoric resources. Such resources could be damaged, destroyed, or removed, resulting in a loss of integrity if encountered during grading, excavation, and/or construction (see Impact 4.8-4). However, the impact would be less severe than under the proposed Remainder Area, because the amount of development would be reduced, and the Sacramento River Water Reliability Project would not be required.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

All of the significant and unavoidable cultural resource impacts that would occur under the proposed Project would also occur within the Remainder Area under Alternative 2.

Hazardous Materials and Public Safety

West Roseville Specific Plan

Use, Storage and Transport of Hazardous Materials; Recycled Water; Electromagnetic Fields

Development of Alternative 2 would result in the same less-than-significant impacts identified for the proposed WRSP related to the routine use, storage, and transport of hazardous materials within the WRSP, including emergency response, use of recycled water in areas accessible to the public, and location of residential uses and schools relative to sources of electromagnetic fields (EMF) (Impacts 4.9-1 and 4.9-3 through 4.9-7). Assuming hazardous materials use is directly proportional to the amount of developed square footage in the industrial/light-industrial, commercial, and business land use categories, the magnitude of hazardous materials use impacts would be reduced because the amount of developed square footage for these uses would be approximately 19 percent less than the WRSP. With approximately one-half the number of dwelling units, there would also be less household hazardous waste generated under this alternative. Land uses within the 1,000-foot buffer around the PGWWTP would be restricted to nonresidential uses, identical to the proposed WRSP, so the less-than-significant impacts identified for the proposed WRSP would not differ under this alternative from the proposed WRSP. Chemical deliveries to the PGWWTP are assumed to be temporarily routed through a residential area along Hayden Parkway, as described for the proposed WRSP (Impact 4.9-8).

Soil and Groundwater Contamination

As with the proposed WRSP, past uses at the Fiddyment Ranch property, which would be developed under Alternative 2, were identified as a potential source of soil contamination requiring additional investigation and/or cleanup as necessary (Impact 4.9-5).

Remainder Area

Use, Storage, and Transport of Hazardous Materials; Recycled Water; Electromagnetic Fields

Development of Alternative 2 would result in the same less-than-significant impacts identified for the proposed Remainder Area related to the routine use, storage, and transport of hazardous materials, use of recycled water in areas accessible to the public, and location of residential uses and schools relative to sources of electromagnetic fields (EMF) (Impacts 4.9-1 and 4.9-3 through 4.9-7). There would be less household hazardous waste generated under this alternative because there would be approximately 50 percent fewer dwelling units, and substantially less hazardous waste generated from nonresidential uses. The Remainder Area is not within 1,000-foot buffer around the PGWWTP, so the less-than-significant

impacts identified for the proposed Remainder Area would not differ under this alternative. Chemical deliveries to the PGWWTP would temporarily be routed through a residential area along Hayden Parkway, as described for the proposed SOI Amendment. Because of the reduced geographic area that would need emergency services (Impact 4.9-2), a fire station would not be needed in the Remainder Area.

Soil and Groundwater Contamination

The Remainder Area has not been surveyed for hazardous materials, so past uses could be a potential source of soil contamination requiring additional investigation and/or cleanup as necessary (Impact 4.9-5).

Mitigation That Would No Longer Be Required

- MM 4.10-3: (Construct new stations as needed.)

Significant and Unavoidable Impacts That Would No Longer Occur

No significant and unavoidable hazards impacts were identified for either the proposed WRSP or Alternative 2.

Public Services

West Roseville Specific Plan

Law Enforcement

As shown in Table 6-5, 13.4 new officers would be required under Alternative 2, half of the required number of officers for the proposed WRSP (see Impact 4.10-1). Administrative support staff would also be needed to support the additional police force.

Fire Protection

Under Alternative 2, development would be confined to the eastern portion of the WRSP site, closer to existing development in the City of Roseville. Because less development would occur, there would be less demand for fire protection. Because development in the WRSP Area under Alternative 2 would be confined to the eastern portion of the WRSP site, existing fire stations would be able to respond to the WRSP site within the four-minute response time standard. The existing Station #5 on Pleasant Grove Boulevard would serve the WRSP Area until other stations are constructed. Once it is constructed, the Blue Oaks Station, Station #8, would also serve the WRSP Area. Nonetheless, because population within

the City would increase, additional fire personnel would be required to serve the WRSP site as with the proposed WRSP (see Impact 4.10-2).

Schools

Under Alternative 2, fewer elementary schools would be needed to support students generated by development in the WRSP (see Table 6-5). Alternative 2 would provide two elementary schools within the WRSP Area. No middle or high school site is proposed as a part of Alternative 2 so the impact on schools would be substantially increased under Alternative 2, and new MM 6-1 would be required. In addition, middle or high school students in the WRSP and Remainder Area would be required to attend existing schools in the City. Increased attendance at existing schools could exacerbate any overcapacity problems in the school district. In addition, the increased student population at existing City schools could result in potentially significant impacts to air quality, noise, and traffic due to increase traffic volumes and redistribution of trips. These impacts, as with the physical impacts resulting from future school facilities, would require separate project-level environmental analysis for CEQA compliance.

Libraries

Under Alternative 2, 11,739 new residents would be generated in the WRSP Area. Because the City's standard for library provision is one new library branch for every 15,000 to 20,000 population, a new library branch or expansion of existing branches would not be warranted under Alternative 2, unlike the proposed WRSP. Nonetheless, existing library facilities would need to be expanded to meet WRSP demand generated by this alternative. The expansion of existing library facilities could result in environmental impacts, but expansion would likely result in less severe environmental impacts than the construction of a new library facility as called for in the proposed project. If future libraries are determined to be required to accommodate demand generated by development under Alternative 2, physical impacts from such new construction would require separate project-level environmental analysis fro CDQA clearance.

Parks and Recreation

As shown in Table 6-5, approximately 105 acres of new parks in total, with 34 acres each of Neighborhood/Community Park; Citywide Park/Community; and Open Space/Passive parks would be required to serve the new population under this alternative. Alternative 2 would provide 1,863 acres of open space and 53.4 acres of active park uses within the WRSP Area. While Alternative 2 would provide enough open space to meet the City's requirement, it would not meet the requirement for provision of Neighborhood/Community Park and Citywide Park/Community uses (Impact 4.10-6). Under Alternative

2, the impact on park and recreation facilities would be more severe than under the proposed WRSP, because less parkland would be provided on a per capita basis.

Mitigation That Would No Longer Be Required

- MM 4.10-9: Provide library branches as needed.

Significant and Unavoidable Impacts That Would No Longer Occur

No significant and unavoidable public services impacts were identified for either Alternative 2 or the proposed SOI Amendment.

New Mitigation Required Only of Alternative 2

- MM 6-1: Provide for one high school site and at least one middle school site in the SOI Amendment Area. (Alternative 2, WRSP)
- MM 6-2: Provide additional parkland and/or in lieu fees to achieve City standards. (Alternative 2, WRSP)

Remainder Area

Law Enforcement

Under Alternative 2, approximately 12 additional police officers would be required to serve the Remainder Area, 10 officers fewer than required under the proposed Remainder Area (see Impact 4.10-1).

Fire Protection

Under Alternative 2, development would be confined to the eastern portion of the Remainder Area, closer to existing development in the City of Roseville, and there would be less demand for fire protection (Impact 4.10-2). The Remainder Area would be served by the existing Station #5 on Pleasant Grove Boulevard and, once it is constructed, the Blue Oaks Station, Station #8. Because of the reduced geographic area, these stations should be able to serve the Remainder Area, so the impact would be less severe than under the proposed Remainder Area, which would require an additional station.

Schools

Alternative 2 would generate a total of 2,774 students in the Remainder Area. These students would attend schools in the Roseville City School District, the Roseville Joint Union High School District and the Center Unified School District (Impact 4.10-3 and 4.10-4). Alternative 2 would provide two elementary schools within the WRSP to serve students in the RCSD. Under Alternative 2, the impact would be more severe than under the project because the need for intermediate and high schools would be greater under

Alternative 2 and would add to overcrowding in existing schools. If future intermediate and high school facilities were to be built, construction could have potentially significant environmental impacts that would need to be addressed on a project-specific basis prior to approval. In addition, middle or high school students in the WRSP and Remainder Area would be required to attend existing schools in the City. Increased attendance at existing schools could exacerbate any overcapacity problems in the school district. In addition, the increased student population at existing City schools could result in potentially significant impacts to air quality, noise, and traffic due to increase traffic volumes and redistribution of trips. These impacts, as with the physical impacts resulting from future school facilities, would require separate project-level environmental analysis for CEQA compliance.

Libraries

Under Alternative 2, approximately 9,766 new residents would be generated. Based on the City's standard for providing one new library branch for every 15,000 to 20,000 population (see Impact 4.10-5), no new library facilities would need to be constructed within the Remainder Area. This would be a less-than-significant impact. However, library facilities would still need to be expanded to meet the new demand. The expansion of library facilities would likely result in less severe environmental impacts than the construction of a new library facility as called for in the proposed project. If future libraries are determined to be required to accommodate demand generated by development under Alternative 2, physical impacts from such new construction would require separate project-level environmental analysis for CEQA clearance.

Parks and Recreation

Under Alternative 2, the Remainder Area would require approximately 84 acres of parkland, and would provide 49.3 acres, which would not meet City standards. While Alternative 2 would provide enough open space to meet the City's requirement, it would not meet the requirement for provision of Neighborhood/Community Park and Citywide Park/Community uses. Therefore, this impact would be more severe than under the proposed WRSP, which would provide adequate parkland for its population.

Mitigation That Would No Longer Be Required

- ffs 4.10-3: Construct new fire stations as needed. (Remainder Only)
- MM 4.10-4: Demonstrate adequate response time or provisions. (Remainder Only)
- MM 4.10-5: Identify appropriate fire station locations. (Remainder Only)
- MM 4.10-6: Fire prevention and suppression policies. (Remainder Only)

Significant and Unavoidable Impacts That Would No Longer Occur

No significant and unavoidable public services impacts were identified for either Alternative 2 or the proposed SOI Amendment.

New Mitigation Required Only of Alternative 2 for the Remainder Area

- MM 6-1: Provide for one high school site and at least one middle school site in the SOI Amendment Area. (Alternative 2, Remainder Area)
- MM 6-2: Provide additional parkland and/or in lieu fees to achieve City standards. (Alternative 2, Remainder Area)

Public Utilities

West Roseville Specific Plan

Water Supply

As shown in Table 6-6, water supply needs for the WRSP would be reduced from 7,042 AF/year (proposed project) to 4,002 A/F/year (WRSP, Alternative 2). This is a reduction of 3,042 AF/year Existing City surface water supply and recycled water would be sufficient to meet demands in both wet and dry years for Alternative 2. In addition, the demand for water treatment, storage, and conveyance would be reduced compared to the WRSP (see Impacts 4.11-1 through 4.11-4).

Recycled Water

The PGWWTP would produce enough water to meet the demands of Alternative 2 (Impact 4.11-5). Infrastructure to convey recycled water would be similar to the proposed WRSP.

Wastewater

Alternative 2 would generate an approximately 50 percent decrease in wastewater flows compared to the proposed WRSP. This alternative would generate flows of 1.4 mgd. Considering the 1.1 mgd of capacity allocated to the VBO in the WWMP EIR, the net increase in capacity for this alternative is 0.3 mgd. The capacity to the PGWWTP would still need to be increased beyond the WWMP EIR-considered capacity of 20.7 mgd. While the impacts for this alternative for Impacts 4.11-7 and 4.11-8 would be reduced, the mitigation measures for the proposed project would need to be applied.

Development under Alternative 2 would require the installation of wastewater collection and conveyance facilities (Impact 4.11-6). Because this alternative would have 1,213 more acres of open space,

the area of land to be disturbed during installation of such facilities to serve the developed area would be less than the WRSP.

Solid Waste

Solid waste generation under Alternative 2 would be approximately 6,084 tons less than what would be generated per year under the proposed WRSP. Development under Alternative 2 could substantially shorten the lifespan of the landfill over thirty years, however, it would be less severe than the proposed WRSP (Impact 4.11-9).

In addition, the amount of materials transported to the MRF would be reduced and waste generated during construction under Alternative 2 would be lower than under the proposed WRSP (see Impacts 4.11-9 and 4.11-10), because less development would occur.

Electricity and Natural Gas

Under Alternative 2 electricity required in the WRSP would be approximately 34.5 MW per year less than the proposed WRSP (see Impact 4.11-11). Under Alternative 2, development would require approximately 7,946,160 Therms of natural gas less than the proposed WRSP (see Impact 4.11-12).

In summary, public utilities impacts would be substantially reduced under Alternative 2 because the amount of development would be less than under the proposed WRSP.

Mitigation That Would No Longer Be Required

- MM 4.11-5: Treatment plant capacity.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Water

As shown in Table 6-6, water supply would be reduced by 2,345 AF/year in the Remainder Area under Alternative 2. This results in a supply requirement for the Remainder Area under Alternative 2 of 3,086 AF/year. Assuming 1,764 AF/year were available from the City (4,080 AF/year less 2,315 AF/year for the WRSP) and up to 3,200 AF/year of transfer water from the San Juan Water District, no additional supply would be required. Water supply requirements could further be reduced through the use of recycled water for irrigation to offset potable supplies.

Wastewater

Flows anticipated to be generated by development of the Remainder Area under Alternative 2 would be 1.1 mgd. This is 1.2 mgd less than the proposed Remainder Area (Impact 4.11-7). The capacity to the PGWWTP would need to be increased beyond the WWMP EIR-considered capacity of 20.7 mgd. While impacts for this alternative for Impacts 4.11-7 and 4.11-8 would be reduced, the mitigation measures for the proposed project would need to be applied.

Development of the Remainder Area under this alternative would result in the need for installation of wastewater collection and conveyance infrastructure (Impact 4.11-6). Because this alternative would have 2,283 more acres in open space than the proposed SOI Amendment, the area of land to be disturbed during installation of such facilities to serve the developed area would be less.

Solid Waste

Solid waste generation under Alternative 2 would be approximately 6,820 tons less than what would be generated per year in the Remainder Area. In addition, the amount of materials transported to the MRF would be reduced (Impact 4.11-10). Waste generated during construction of the Remainder area under Alternative 2 would be lower than under the proposed SOI Amendment (see Impact 4.11-9), because less development would occur.

Electricity and Natural Gas

Under Alternative 2 electricity required in the Remainder Area would be approximately 35.6 MW per year less than the proposed SOI Amendment (see Impact 4.11-11). Under Alternative 2, development would require approximately 5,101,920 Therms of natural gas less than the proposed SOI Amendment (see Impact 4.11-12).

In summary, public utilities impacts would be substantially reduced under Alternative 2 because the amount of development would be less than under the proposed Remainder Area

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

- Impact 4.11-1: Availability of water supplied to meet demand in wet years.

Hydrology, Water Quality, And Groundwater

West Roseville Specific Plan

Stormwater Runoff (Peak Flows)

Under Alternative 2, approximately 59 percent of the WRSP Area would remain as open space and would not be developed with new impervious surfaces. As a result, the rate and amount of stormwater discharged to the Pleasant Grove Creek and Curry Creek watersheds would be proportionately reduced. The detention and other drainage facilities would also be reduced accordingly (Impact 4.12-1).

Stormwater Runoff (Volumes)

While the volume of stormwater being discharged would also be proportionately reduced under Alternative 2, as compared to the proposed WRSP, this water would still need to be directed to and stored in the planned regional retention basin in the Reason Farms property to the west (Impact 4.12-2).

Floodplain Fill

Under Alternative 2, all areas of the 100-year floodplain would remain as open space, so there would be no impact on the floodplain due to fill. Some fill could be placed in the floodplain for roadway bridge crossings (Impact 4.12-3).

Water Quality

Because Alternative 2 provides for approximately one-half the level of development as the proposed WRSP, the amount of construction would be reduced by approximately half. As a result, the potential for erosion during construction would be substantially lower than under the proposed WRSP (Impact 4.12-4). As with the proposed WRSP, the impact of construction on water quality would be less than significant, because contractors would be required by State law and City Improvement standards to implement Best Management Practices to protect water quality. Potential degradation of water quality due to urban contaminants would also be reduced under Alternative 2 (Impact 4.12-5).

Groundwater Resources

Groundwater would still be needed in drier and driest years under this Alternative because the 3,200 AF/year from the SJWD would not be available as required under the City and SJWD MOU. However, the volume of groundwater required to be extracted would be significantly reduced as compared to the proposed project (Impact 4.11-2).

Groundwater Recharge

Under Alternative 2, the amount of open space would increase substantially relative to the proposed WRSP. Consequently, the amount of impervious coverage that could interfere with groundwater recharge would be reduced by approximately one-half, as compared to the proposed WRSP (Impact 4.12-7). The magnitude of this impact would be reduced because of the increase in open space.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

The short-term significant and unavoidable impacts on downstream flooding identified for the proposed WRSP until construction of the Reason Farms detention project occurs would also occur under Alternative 2, although the severity of the impacts would be incrementally reduced because of the reduction in impervious surfaces.

Remainder Area

Stormwater Runoff (Peak Flows)

Under Alternative 2, the rate and amount of stormwater discharged to the Pleasant Grove Creek and Curry Creek watersheds would be proportionately reduced. Because there would be no contribution from the southern Remainder Area to the Curry Creek shed that required mitigation for the WRSP to address the effects of combined flows, the potentially significant impact identified for the SOI Amendment would be avoided (Impact 4.12-1). Therefore, impacts on peak flows under Alternative 2 would less severe than identified for the Remainder Area.

Stormwater Runoff (Volume)

The increase in stormwater runoff volumes from the Remainder Area would be reduced, under Alternative 2 but not to a less-than-significant level, under Alternative 2 because less area would be developed (Impact 4. 12-2).

Floodplain Fill

Under Alternative 2, no development would occur along Pleasant Grove Creek in the Remainder Area. Placement of fill or structures along Curry Creek in the Remainder Area could encroach upon the floodplain, which could reduce the capacity of the channel to convey flows (Impact 4. 12-3) similar to the proposed Remainder Area. This impact would be less than significant with mitigation.

Water Quality

The amount of erosion and urban contaminants generated by construction and operation would be substantially reduced compared to the proposed WRSP. Construction-related water quality impacts would be less than significant, because contractors would be required to implement BMPs and implement an erosion control measure (Impact 4.12-4). Operational impacts on water quality would also be reduced because there would be less development (Impact 4.12-5).

Groundwater Resources

Groundwater would still be used to supplement surface water supplies for the Remainder Area (Impact 4.12-6).

Groundwater Recharge

As discussed for the SOI Amendment, groundwater recharge impacts would be reduced in magnitude because more area would remain as open space (Impact 4.12-7).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Aesthetics and Visual Resources

West Roseville Specific Plan

Alterations to Visual Character

Alternative 2 would convert a majority of the approximately 3,162 acres of currently undeveloped grassland into urban uses. Of this, approximately 1,863 acres would be retained as open space, approximately 1,178 acres more than the proposed WRSP. In addition, the visual character of the drainages would be better preserved than under the proposed WRSP (see Impact 4.13-1), due to preservation of the land north of Pleasant Grove Creek.

Light and Glare

Although this alternative would reduce the amount of land developed as urban uses, development of Alternative 2 would still result in a substantial change in the amount of light generated on the site, and

alter nighttime views of the site (see Impact 4.13-2). The amount of glare would also be proportionately reduced. However, the amount of development proposed by this alternative could still substantially alter the amount of daytime glare on the site.

Other Visual Impacts

As with the proposed WRSP, impacts on visual compatibility and scenic views would be less than significant under Alternative 2.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

The significant and unavoidable visual impacts that would occur under the proposed WRSP would also occur under Alternative 2, although their severity would be reduced.

Remainder Area

Alterations to Visual Character

Under Alternative 2, development in the Remainder Area would be substantially reduced, and approximately 930 acres of currently undeveloped grassland would be converted to urban uses, preserving approximately 1,435 acres of open space. This impact would be reduced in comparison to development of the entire Remainder Area, because of the increase in open space under this alternative.

Light and Glare

Under Alternative 2 light and glare impacts would be reduced in comparison to the proposed Remainder Area, because the amount of area to be developed with light and glare producing uses would be reduced (see Impact 4.13-2).

Other Visual Impacts

As with the proposed Remainder Area, impacts on visual compatibility and scenic views would be less than significant under Alternative 2.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

The significant and unavoidable impacts that would occur under the proposed Remainder Area would also occur under Alternative 2, although the severity would be reduced.

Conclusions

Alternative 2 would be environmentally superior to the proposed WRSP and SOI Amendment, because substantially fewer acres would be developed. In most cases, the impacts of Alternative 2 would be the same as or reduced compared to the proposed WRSP and SOI Amendment. Several impacts that would be significant and unavoidable under the proposed WRSP and SOI Amendment would not occur or would be less than significant under Alternative 2, including

- Conversion of agricultural land to developed uses (Impact 4.1-4)
- Increased traffic on City of Rocklin roadways (Impact 4.3-4 for SOI amendment only)
- Increased congestion due to Pedestrian District overlay (Impact 4.3-8 for SOI amendment only)
- Increased demand for water treatment (Impact 4.11-3 for the SOI amendment)

At the same time, one significant and unavoidable impact would be more severe under Alternative 2, including

- Loss of historically significant resources (Impact 4.8-2 for the WRSP only)

Alternative 2 would meet some project objections. 8,340 residential units would not be constructed, inconsistent with Objective 4. Also, this alternative does not include Fiddyment Park or adequate high school facilities (Objective 7). Alternative 2 does not preserve the oak woodlands or the Fiddyment Home Complex as described in Objective 7f. Because no Village Center is included in Alternative 2, Objective 5c, calling for identifiable and walkable neighborhoods with incorporated gathering places, such as parks and schools, for neighborhood activities and interaction, would not be as well served by Alternative 2 as by the proposed WRSP. In addition, the reduction in development could preclude achievement of Objective 10, calling for a mix of uses and facilities that are fiscally feasible to implement and do not negatively impact the City's General Fund.

6.2.6 Alternative 3: Increased Intensity Alternative

Under Alternative 3, approximately the same number of residential units would be developed as under the proposed WRSP and SOI Amendment, but at substantially higher densities so that the amount of open space would increase. Average residential density would increase from 5.8 units per acre in the WRSP Area to 8.8 units per acre under Alternative 3. The Remainder Area would see a similar shift, from

4.9 to 9.9 du/acre. Industrial, commercial, and business/professional uses would also occur at higher densities, so that approximately the same square footage could be developed on fewer acres. The Village Center would be developed under this alternative. As a result, the amount of open space in the WRSP and Remainder Areas would increase from 1,034 to 3,076 acres, an increase of approximately 300 percent.

Two elementary schools would be provided in the WRSP Area in the Roseville City School District, with an additional two elementary schools in the Remainder Area, both in the Center Unified School District. A high school and a middle school would be provided in the WRSP Area, and another middle school would be provided in the Remainder Area.

Parks acreage would be reduced to approximately 40 acres in the WRSP Area, and 112 acres in the Remainder Area, due largely to the elimination of both the Regional Park and sports complex and Fiddyment Park. It is assumed that the high school stadium would be constructed under Alternative 3, the same as with the proposed WRSP.

Off-site infrastructure would be similar to the proposed WRSP and Remainder Area, with the exception of improvements to Blue Oaks Boulevard north of City property, which would not occur under this alternative.

Alternative 3 land uses are shown in Figure 6-3 (Alternative 3 Increased Intesity) and Table 6-32. Table 6-32 shows the land use assumptions for Alternative 3.

Table 6-32 Alternative 3 Increased Density

Zoning	Land Use	WRSP		Remainder Area		SOI Amendment Area	
		Acres	Dus	Acres	DUs	Acres	DUs
OS	Open Space	1743.6		1,292.52		3,036.12	0
PR	Park and Recreation	39.9		112.33		152.23	0
P/QP	Public/Quasi-Public	142.1		40		182.10	0
LDR	Low-density Residential	0.00	0	0.00	0	0.00	0
LDR	Low-density Residential	0	0	0	0	0	0
	(Age Restricted)						
MDR	Medium-density Residential	895.8	6,455	740	5,550	1,635.8	12,005
HDR	High-density Residential	59.1	1,450	74	1,850	133.1	3,300
CC	Community Commercial	88.5	525	29.97		118.47	525
BP	Business Professional			21.70		21.70	0
LI	Light Industrial	81.1				81.1	0
IND	Industrial					0	0
?	Kennel					0	0
R/W	Road right-of-way	108.8		54.77		163.58	0
OS/Paseo	Paseo	3.1				3.1	0
	Total	***3,162***	***8,430***	***2,365.30***	***7,400***	***5,527.30***	***15,830***

SOURCE: West Roseville Specific Plan, September 15, 2003

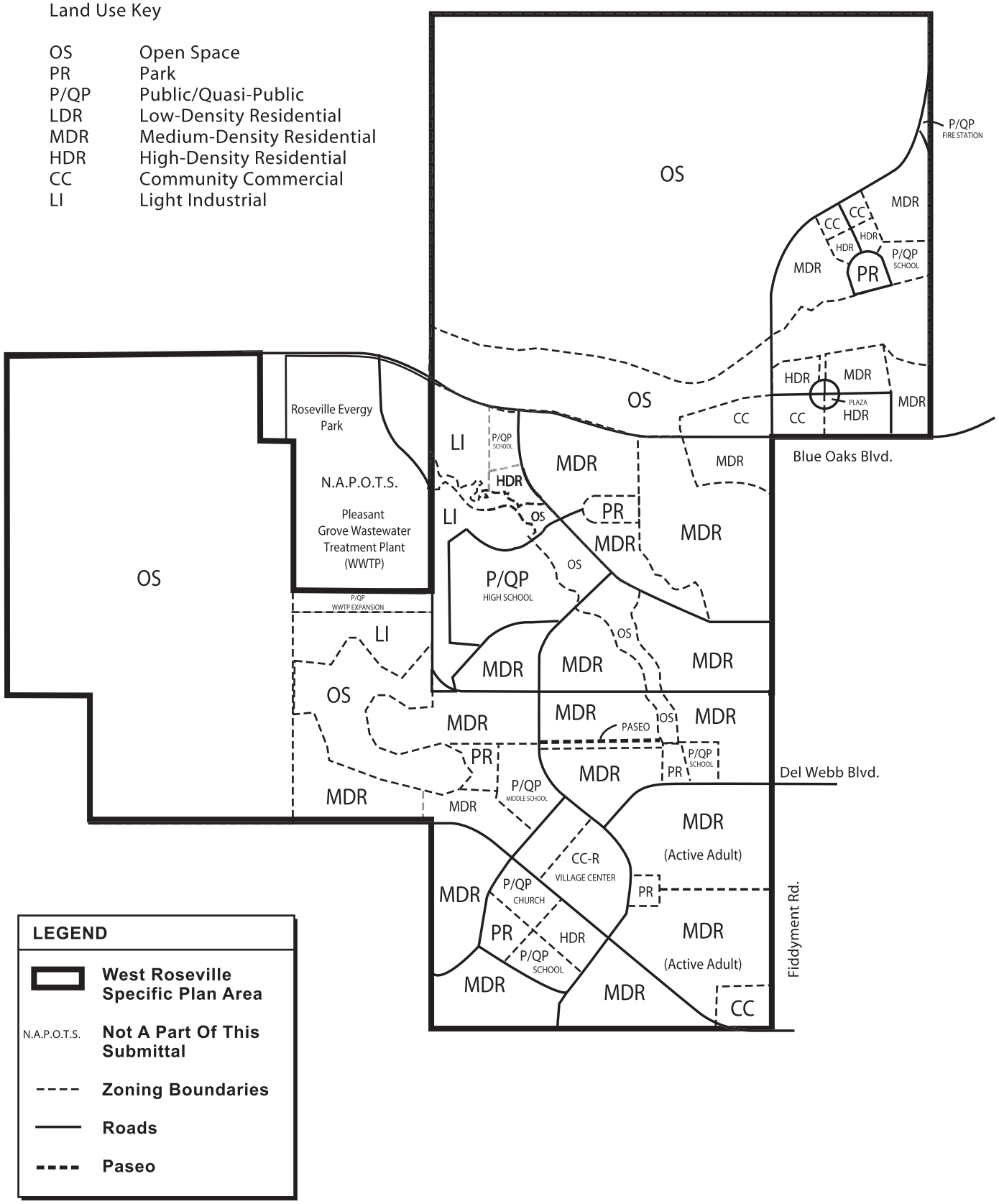


FIGURE **6-3**

Alternative 3: Increased Intensity

Not to Scale

10659-00

Source: Morton & pitalo, Inc., 2003; EIP Associates, 2003

City of Roseville

Land Use and Agricultural Resources

West Roseville Specific Plan

Under Alternative 3, the mix of land uses would be similar to the proposed WRSP. However, the overall residential density would be increased to include all medium and high-density residential uses. No low-density residential would be included. A majority of the proposed development would be residential uses, with large areas of open space north of Pleasant Creek and west of the PGWWTP. Only a small area of residential uses south of the high school would be adjacent to industrial uses. Approximately half of the WRSP Area in the northern and western portion would be left in undeveloped open space, including the 20.4 acres of Prime Farmland that would be developed under the proposed WRSP (see Table 6-2).

Under Alternative 3, no development would occur north of Pleasant Grove Creek in the Fiddyment Ranch Property. Therefore, the existing access along Phillip Road would not change. Furthermore, without the extension of Blue Oaks Boulevard, there would be no need for the City to acquire the O'Brien property or property to north for right-of-way.

Because of the reduced potential for conflicts, the reduction in the amount of farmland that would be converted to urban uses, and the elimination of the less-than-significant impact on access to existing properties, the land use impacts of Alternative 3 would be less severe than under the proposed WRSP.

Mitigation That Would No Longer Be Required

- MM 4.5-6 (Attenuate park noise)
- MM 4.13-1 (a) (Restrict high-watt light usage and hours for parks)

Significant and Unavoidable Impacts That Would No Longer Occur

- Impact 4.1-4: Conversion of agricultural land

Remainder Area

The location and configuration of land uses in the Remainder Area have not been determined under Alternative 3. Similar to the proposed Remainder Area assumptions, it is assumed they would be similar to the types and densities of land uses in the WRSP (e.g., residential, commercial). Therefore, future development could include residential land uses near commercial operations and schools. The potential for land use conflicts would be essentially the same as the proposed Remainder Area because a similar type of use would be developed.

Alternative 3 would result in similar conflicts between land uses as the proposed WRSP, so the land use impacts would be the same as under the proposed WRSP.

Mitigation That Would No Longer Be Required

- MM 4.5-7 (Park noise policies)

Significant and Unavoidable Impacts That Would No Longer Occur

The significant and unavoidable land use impacts identified for the Remainder Area as proposed would occur under Alternative 3, but would be less severe.

Population, Employment, and Housing

West Roseville Specific Plan/Remainder Area

Jobs/Housing Balance/Resolution 83-118

As shown in Table 6-3, the City's jobs/housing ratio for the WRSP Area under Alternative 3 would be slightly lower than the proposed WRSP and Remainder Area. Like the proposed WRSP and Remainder Area, Alternative 3 would comply with City Resolution 83-118. Under Alternative 3, the City's job/housing ratio would be slightly improved relative to its current ratio. However, the improvement would not be as great as under the proposed project, because the alternative would provide for the same amount of residential development while creating fewer jobs (see Table 6-3) from commercial, industrial and business/professional development (Impact 4.2-1). As with the proposed Remainder Area, enough jobs would be within proximity of the Remainder Area to satisfy Resolution 83-118.

Affordable Housing

Ten percent of residential units would be made affordable under either the proposed WRSP and Remainder Area or Alternative 3, consistent with City policy.

Displacement of Existing Housing

Similar displacement of housing would occur under Alternative 3 as the proposed WRSP and Remainder Area, and would be less than significant.

Inducement of Substantial Population Growth

As the same development is proposed under Alternative 3, the same population growth would be induced. This impact would be significant and unavoidable, the same as with the WRSP and Remainder Area.

Consistency with Adopted City Policies

Alternative 3 proposes the same development over a smaller area, and would be consistent with the adopted City policies as outlined for the WRSP and Remainder Area.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

The same significant and unavoidable population, employment, and housing impacts identified for proposed the WRSP and Remainder Area would occur under Alternative 3.

Transportation and Circulation

SOI Amendment/Remainder Area

City of Roseville Roadways

Alternative 3 would generate approximately 203,340 daily trips, compared to 209,221 under the Proposed Project. This would be a reduction of approximately 2.8 percent. The internal circulation pattern would be very different under Alternative 3, because there would not be any development west of the PGWWTP, although a north/south arterial is assumed to be extended north to the future Placer Parkway alignment. The primary east/west roadways would be the same as under the proposed SOI Amendment, but truncated. Other north/south connections would be similar as well, except that West Side Drive would not be constructed. Therefore, the primary points of access to the WRSP Area would be from Blue Oaks Boulevard, Fiddyment Road, Pleasant Grove Boulevard, Market Street, Baseline Road, and perhaps Watt Avenue, depending on its future alignment. The slight reduction in trips would not be expected to substantially reduce impacts at local intersections, so levels of service would likely be the same as under the proposed WRSP (Impact 4.3-1).

State Highways

Like the proposed SOI Amendment, Alternative 3 would increase congestion on State highways (Impact 4.3-2), although the impact would be slightly less severe than under the proposed SOI Amendment, because of the reduction in trips.

Other Local Roadways

Impacts on Placer County, Rocklin and Sutter County roadways would be the same as the proposed SOI Amendment, although slightly reduced due to the reduction in trips (Impacts 4.3-3, 4.3-4, 4.3-5, and 4.3-6).

Bicycle Circulation and Transit

The demand for bicycle circulation and transit would be almost identical to the proposed SOI Amendment, because the number of people generated by Alternative 3 would be reduced only slightly (Impacts 4.3-7). Bicycle and pedestrian facilities would extend throughout the developed portion of the Remainder Area under Alternative 3. As discussed above, Alternative 3 should increase transit use, because of the higher densities. With this mitigation, impacts on bicycle circulation and transit would be slightly less severe than under the proposed WRSP, because facilities would not need to be extended as far.

Pedestrian District Overlay

Alternative 3 does include a Village Center, so the proposed General Plan Amendment to add a Pedestrian District policy would also be included, and impacts on traffic congestion would be identical to the proposed SOI Amendment and Remainder Area.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

No significant and unavoidable impacts would be eliminated under this alternative.

West Roseville Specific Plan

City of Roseville Roadways

Under Alternative 3, approximately 107,195 trips would be generated in the WRSP Area, compared to 110,341 under the proposed WRSP, a reduction of approximately 2.9 percent. The internal circulation pattern would also be different, with West side Drive eliminated from Alternative 3. Nonetheless, the primary points of access to the WRSP Area would be from Blue Oaks Boulevard, Fiddyment Road, and Pleasant Grove Boulevard, similar to the proposed WRSP. The slight reduction in trips would not be expected to substantially reduce impacts at local intersections, so levels of service would likely be the same as under the proposed WRSP.

State Highways

Like the proposed WRSP, Alternative 3 would increase congestion on State highways (Impact 4.3-2), but the impact would be slightly less severe than under the WRSP, because of the reduction in trips.

Other Local Roadways

Impacts on Placer County, Rocklin, Sutter County, and Sacramento County roadways would be the same as the proposed WRSP, although slightly reduced due to the reduction in trips (Impacts 4.3-3, 4.3-4, 4.3-5, and 4.3-6).

Bicycle Circulation and Transit

The demand for bicycle circulation and transit would be almost identical to the proposed WRSP, because the number of people generated by Alternative 3 would be only slightly less than under the proposed WRSP (Impacts 4.3-6). With the higher densities, Alternative 3 should be more conducive to transit use than the proposed WRSP.

Pedestrian District Overlay

Alternative 3 does include a Village Center, so the General Plan Amendment to add a Pedestrian District policy would also be included, and impacts on traffic congestion would be identical to the proposed WRSP.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

No significant and unavoidable impacts would be eliminated under this alternative.

Air Quality

SOI Amendment

Construction Emissions

Under Alternative 3, PM_{10} emissions from construction in the SOI Amendment Area are estimated to be reduced by approximately 13 percent for PM10, 32 percent for ROG, 30 percent for NOx, and 44 percent for CO, because of the reduction in developed areas (see Table 6-4). Nonetheless, ROG, NOx, and PM_{10} emissions would exceed District standards (Impacts 4.4-1 and 4.4-2).

Operational Emissions

Under Alternative 3, total operational emissions are estimated to be reduced by approximately less than one percent for ROG, four percent for NOx, 17 percent for CO and 13 percent for PM_{10} (see Table 6-4). The emissions would still exceed District thresholds under this alternative (Impact 4.4-3).

Toxic Air Contaminants

Alternative 3 would result in almost the same number of residents being exposed to TACs from the PGWWTP as well as pollutants from diesel-powered vehicles (Impact 4.4-4). However, there would be a 27-acre reduction in industrial uses, so fewer TACs would be produced.

Other Emissions

As with the proposed SOI Amendment, Alternative 3 would not result in any CO violations (Impact 4.4-5), or significant odor impacts (Impact 4.4-6).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

Significant and unavoidable impacts under Alternative 3 would be similar to the proposed SOI Amendment.

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Construction Emissions

As shown in Table 6-4, construction emissions under Alternative 3 would be lower than under the proposed WRSP by 17 percent for ROG, 11 percent for NOx, 39 percent for CO, and 5 percent for PM_{10} (Impacts 4.4-1 and 4.4-2).

Operational Emissions

Operational emissions under Alternative 3 would be similar to the proposed WRSP, but slightly higher due to the change in mix of land uses (e.g., less industrial and more commercial) (Impact 4.3-3). Total operational emissions under Alternative 3 would be six percent higher for ROG, 15 percent for NOx, eight percent for CO, and three percent for PM_{10} (see Table 6-4).

Toxic Air Contaminants

Under Alternative 3, approximately 250 fewer people would reside in the WRSP Area (a 1.2 percent reduction due to the increased density of residential units, since higher densities have fewer people). Therefore, there would only be a slight change in the number of people who could be exposed to TACs from the PGWWTP and other industrial uses in the WRSP Area, as well as pollutants from diesel powered vehicles (Impact 4.4-4). At the same time, there would be a 27-acre reduction on the amount of industrial uses that could generate TACs.

Other Emissions

Under Alternative 3, the less-than-significant impacts due to carbon monoxide "hotspots" and odors would be unchanged (Impacts 4.4-5 and 4.4-6)

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

Significant and unavoidable impacts under Alternative 3 would be similar to the proposed WRSP.

Remainder Area

Construction Emissions

Under Alternative 3, PM_{10} emissions from project construction would be reduced by 20 to 49 percent in the Remainder Area (see Table 6-4) due to the reduction in developed land (Impacts 4.4-1 and 4.4-2).

Operational Emissions

Under Alternative 3, total operational emissions are reduced by seven to 20 percent, as shown in Table 6-4. The emissions would still exceed District thresholds under this alternative (Impact 4.4-3).

Toxic Air Contaminants

Alternative 3 would result in almost the same number of residents being exposed to TACs from the PGWWTP and industrial uses in the WRSP Area (Impact 4.4-4).

Other Emissions

As with the proposed Remainder Area, Alternative 3 would not result in any CO violations or significant odor impacts.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Noise

SOI Amendment

Commercial and Industrial Noise

Like the proposed SOI Amendment, Alternative 3 is assumed to include a variety of land uses, including residential, commercial, and industrial in proximity to each other. The total amount of industrial and commercial uses would be similar to the proposed SOI Amendment, so noise impacts would be similar (Impacts 4.5-2 and 4.5-3).

Schools

Under Alternative 3, elementary, middle and high schools would be constructed within the SOI Amendment Area (Impact 4.5-4), similar to the proposed SOI Amendment. The high school is assumed to have a stadium, like the proposed SOI Amendment. Because residential densities would be greater under Alternative 3, potential exposure of residents to noise from schools would be increased relative to the proposed SOI Amendment.

Park-related Noise

No regional parks, soccer fields, or amphitheatres would be located in the SOI Amendment Area, so noise from park activities would be substantially reduced (Impact 4.5-5).

Traffic Noise

Under Alternative 3, noise levels would be expected to exceed 60 Ldn along the same roadways as under the SOI Amendment, because traffic levels would be very similar. Similarly, off-site increases in noise would be the same as the proposed SOI Amendment (Impact 4.5-8, 4.5-9, and 4.5-10).

Other Noise Sources

Under Alternative 3, the less-than-significant impacts due to noise from construction (Impact 4.5-1), the PGWWTP (Impact 4.5-6), and fire stations (Impact 4.5-7) would be the same as under the proposed SOI Amendment.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

Under Alternative 3, significant and unavoidable noise impacts would be similar to those of the proposed SOI Amendment, although impacts associated with school noise would be increased slightly (Impact 4.5-4). Noise impacts from high-density residential uses could be reduced when compared to the Proposed Project as outdoor use areas decrease compared to single-family residences and mitigation to interior standards is more easily accomplished.

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Commercial and Industrial Noise

As shown in Figure 6-3, the mix of land uses under Alternative 3 would be similar to the proposed WRSP, but the densities would increase, and the distribution would change. Commercial uses would still be located adjacent to residential areas, while industrial uses would be buffered from residential areas (Impacts 4.5-2 and 4.5-3). The same number of residents would be exposed to these potential noise sources, so the impacts would be similar.

Schools

Under Alternative 3, there would be a high school, a middle school, and two elementary schools within the WRSP Area. The high school could have a stadium, which could generate substantial noise (Impact 4.5-4). Residential densities near schools would be higher under Alternative 3, so the impact would be slightly more severe, although still less than significant.

Park-Related Activities

Under Alternative 3, there would be no regional parks, so no soccer fields or amphitheatre would be constructed within the WRSP Area (Impact 4.5-5).

Traffic Noise

Under Alternative 3, project-related traffic would decrease by approximately 6,000 trips, or 2.9 percent, which would not substantially alter traffic noise levels identified for the proposed WRSP, either on or off-site (see Impacts 4.5-8, 4.5-9 and 4.5-10).

Other Noise Sources

Under Alternative 3, the less-than-significant impacts due to noise from construction (Impact 4.5-1), the PGWWTP (Impact 4.5-6), and fire stations (Impact 4.5-7) would be the same as under the SOI Amendment.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

Under Alternative 3, significant and unavoidable noise impacts would be similar to those of the proposed SOI Amendment, although impacts associated with school noise would be increased slightly (Impact 4.5-4). Noise impacts from high-density residential uses could be reduced when compared to the Proposed Project as outdoor use areas decrease compared to single-family residences and mitigation to interior standards is more easily accomplished.

Significant and Unavoidable Impacts That Would Be More Severe Under Alternative 3

None.

Remainder Area

Commercial Noise

Under Alternative 3 a variety of land uses would be located in the Remainder Area, including commercial and business/professional in proximity to residential uses. The amount of such uses would be reduced by more than 50 percent compared to the proposed Remainder Area, so the amount of noise from these sources would be lower under Alternative 3 (Impact 4.5-2).

Schools

Under Alternative 3, one or more schools is likely to be constructed within the Remainder Area (Impact 4.5-4). Noise levels would be similar to the proposed Remainder Area, although residential densities would be greater near schools, thus exposing more residents to potential sources of noise. Therefore,

impacts from schools would be slightly higher than under the proposed SOI Amendment, although still less than significant.

Park-Related Noise

No regional parks, soccer fields, or amphitheatres would be located in the SOI Amendment Area under Alternative 3, so there would be no significant park noise (Impact 4.5-5).

Traffic Noise

Under Alternative 3, project-related traffic would decrease, traffic noise levels identified for the proposed Remainder Area would not change, either on or off site (see Impacts 4.5-8, 4.5-9 and 4.5-10).

Other Noise Sources

Under Alternative 3, the less-than-significant impacts due to noise from construction (Impact 4.5-1), industrial noise (Impact 4.5-3), the PGWWTP (Impact 4.5-6), and fire stations (Impact 4.5-7) would be the same as under the SOI Amendment.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

No significant and unavoidable impacts would be eliminated under this alternative.

Significant and Unavoidable Impacts That Would Be More Severe Under Alternative 3

None.

Geology, Soils, and Seismicity

WRSP/Remainder Area

Alternative 3 would be subject to the same soil and geologic conditions, and would have to comply with the same laws, regulations and City Improvements Standards as the proposed WRSP and SOI Amendment. Impacts from implementation of Alternative 3 would be slightly less severe than the proposed WRSP or SOI Amendment, because the same number of residences but less commercial and industrial space would be developed.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

No significant and unavoidable impacts would occur under either Alternative 3 or the proposed WRSP or SOI Amendment.

Biological Resources

West Roseville Specific Plan

Loss of Federally Protected Wetlands and "Other Waters" of the United States; Loss or Degradation of Habitat for Wetlands Species

Under Alternative 3, open space would increase from 684.6 acres under the WRSP to 1,743.6 acres. This open space area would include the entire 100-year flood plain west of the PGWWTP, and most of the area north of Pleasant Grove Creek. Consequently, impacts on federally protected wetlands and "other" waters of the U.S. would be substantially reduced compared to the proposed WRSP (Impact 4.7-1). Furthermore, only one crossing over Pleasant Grove Creek would be constructed. Although the impact would be substantially reduced, impacts on wetlands would still occur under Alternative 3. Loss of federally protected wetlands and "other" waters of the U.S. would include 9.25 acres of vernal pools (compared to 13.8 acres under the proposed WRSP), as well as wet swales and channels, seasonal wetlands, and emergent wetlands, which provide habitat for wetlands species (Impacts 4.7-2 through 4.7-4).

Disturbance to Nesting Raptors

Under Alternative 3, the impacts on nesting raptors would be similar to the proposed WRSP (Impact 4.7-5), because construction activity would still occur in areas adjacent to Pleasant Grove Creek. Because oak woodland southwest of the Blue Oaks Boulevard/Fiddyment Road intersection would be removed entirely, impacts would be more severe under Alternative 3.

Loss of Annual Grassland Habitat

Alternative 3 would result in the substantial loss of annual grasslands, which provides foraging habitat for raptors (Impact 4.7-6). Even though Alternative 3 provides almost three times as much open space as the proposed WRSP, a substantial amount of grasslands would be lost to development (approximately 1,420 acres).

Wildlife Movement Corridors and Loss of Riparian Habitat

Alternative 3 would have less of an effect on migratory corridors than the proposed WRSP (Impacts 4.7-7 and 4.7-9), because there would be only one creek crossing, and little development north of Pleasant Grove Creek. Under Alternative 3, this impact would be less severe than under the proposed WRSP.

Loss of Oak Trees

Alternative 3 would remove oak trees for the Pleasant Grove Creek Crossing and development of the area designated Fiddyment Park under the proposed WRSP (Impact 4.7-8). This area contains extensive trees, including an oak woodland, so the impacts of Alternative 3 on oak tree loss would be more severe than those of the proposed WRSP.

Off-site Infrastructure

Off-site infrastructure would be required for Alternative 3, but fewer improvements would be needed than under the proposed WRSP (Impact 4.7-10). Roadway and water conveyance lines would need to be extended, but only one crossing of Pleasant Grove Creek would be constructed.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Significant and Unavoidable Impacts That Would Be More Severe under Alternative 3

The short-term significant and unavoidable loss of oak trees would be a more severe impact under Alternative 3, because the oak woodland would be developed (Impact 4.7-8).

Remainder Area

Loss of Federally Protected Wetlands and "Other Waters" of the United States; Loss or Degradation of Habitat for Wetlands Species

Under Alternative 3, the amount of open space would increase substantially in the Remainder Area. A total of 1,292.4 acres would be designated open space, compared to 364.3 acres under the proposed Remainder Area. Nonetheless, impacts on wetlands and "other" waters of the U.S. would still likely occur as a result of such development, because of the dispersion of potential wetlands in the SOI Amendment Area (Impact 4.7-1). As with the proposed Remainder Area, wetland habitat would likely be

destroyed and/or degraded (Impacts 4.7-1, 4.7-2, 4.7-3, and 4.7-4). However, because fewer acres of habitat would be disturbed, the impact would be substantially less severe under Alternative 3 than with the proposed Remainder Area.

Disturbance to Nesting Raptors

Under Alternative 3, impacts on nesting raptors in and around the Remainder Area would be similar to the proposed Remainder Area, because construction activity would still occur in areas most likely to contain nests, such as adjacent to Pleasant Grove Creek. Therefore, the potential for disturbing nesting raptors would be similar to the level of impact of the proposed Remainder Area (Impact 4.7-5).

Loss of Annual Grassland Habitat

Alternative 3 would reduce the loss of annual grasslands by increasing open space to 1,292.4 acres, from 364.3 acres under the proposed Remainder Area. Therefore, the loss of foraging habitat would be reduced (Impact 4.7-6).

Wildlife Movement Corridors and Loss of Riparian Habitat

Under Alternative 3, there would be fewer stream crossings and other urban barriers to wildlife movement, as discussed above. In addition, there would be a reduction in the degree of fragmentation, as the remaining habitat would remain contiguous with off-site open space. Some stream crossings would still be necessary under this alternative (Impacts 4.7-7 and 4.7-9). However, because of the reduction in development, the impact would be less severe under Alternative 3 than under the proposed Remainder Area.

Loss of Oak Trees

As discussed above, Alternative 3 could result in a similar loss of native oaks as the proposed Remainder Area because the native oaks within the Remainder Area are generally limited to the Pleasant Grove and Curry Creek corridors (Impact 4.7-8).

Off-site Infrastructure

The amount of off-site infrastructure needed to serve the Alternative 3 Remainder Area would be similar to the proposed Remainder Area (Impact 4.7-10).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Cultural Resources

West Roseville Specific Plan

Archaeological Resources

Under Alternative 3, the amount of open space surrounding Pleasant Grove Creek would be increased, which could reduce the likelihood of encountering a known archaeological site during development. However, if the archaeological site extends beyond the floodplain, or is located in the path of facilities that would be placed in proximity to the creek (e.g., crossings, pipelines, trails), it could be damaged during grading and/or construction. In addition, there could be subsurface historic or prehistoric resources elsewhere in the WRSP Area.

Historic Properties

Alternative 3 would remove the Fiddyment Ranch complex to accommodate residential development. This would be a more severe impact on these historic resources, in comparison to the proposed WRSP, which includes developed land uses that closely surround, but do not overlay, the Fiddyment Ranch Site.

Paleontological Resources

As discussed above, Alternative 3 would not disturb as much land as the proposed WRSP. Therefore paleontological resources are less likely to be disturbed during development.

Off-site Infrastructure

Under Alternative 3, off-site infrastructure would include roads, electrical infrastructure, water and sewer lines, and water tanks. Impacts would be similar to the proposed WRSP.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

All of the significant and unavoidable cultural resource impacts that would occur under the proposed SOI Amendment would also occur under Alternative 3. For Impacts 4.8-1, 4.8-3 and 4.8-4, the impacts

would be less severe under Alternative 3, because substantially fewer acres would be subject to disturbance.

Significant and Unavoidable Impacts That Would Be More Severe under Alternative 3

Impact 4.8-2: Removal of historically significant properties and/or loss of historic integrity of such resources

Remainder Area

Archaeological Resources

Under Alternative 3, development in the Remainder Area would be substantially reduced, so that less area would be subject to disturbance. Consequently, the potential for damaging or destroying archaeological resources would be reduced (Impact 4.8-1).

Historic Properties

Under Alternative 3, the Remainder Area has not been surveyed, so it is not known whether it contains any historic resources. Therefore, development of Alternative 3 could affect historic resources, if present, through removal, relocation, reuse and/or substantially altering the context in which the historic resources occur (Impact 4.8-2).

Paleontological Resources

As discussed above, the increase in open space under Alternative 3 would reduce the potential to encounter paleontological resources during construction within the Remainder Area (Impact 4.8-3).

Off-site Infrastructure

Under Alternative 3, the need for off-site infrastructure would be similar to the proposed Remainder Area (Impact 4.8-4).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Hazardous Materials and Public Safety

West Roseville Specific Plan

Hazards

Development of Alternative 3 would result in the same less-than-significant impacts identified for the proposed WRSP related to the routine use, storage, and transport of hazardous materials within the WRSP Area, including emergency response, use of recycled water in areas accessible to the public, and location of residential uses and schools relative to sources of electromagnetic fields (EMF). Assuming hazardous materials use is directly proportional to the amount of developed square footage in the industrial/light-industrial, commercial, and business land use categories, the magnitude of hazardous materials use impacts would be reduced because the amount of developed square footage for these uses would be less than the WRSP. However, household hazardous waste generated under this alternative would be the same as the proposed WRSP because the number of dwelling units would remain the same. Land uses within the 1,000-foot buffer around the PGWWTP would be restricted to nonresidential uses, identical to the proposed WRSP, so the less-than-significant impacts identified for the proposed WRSP would not differ under this alternative from the proposed WRSP. Chemical deliveries to the PGWWTP are assumed to be temporarily routed through a residential area along Hayden Parkway, as described for the proposed WRSP.

Soil and Groundwater Contamination

Alternative 3 would be identical to the proposed WRSP, where past uses at the Fiddyment Ranch property were identified as a potential source of soil contamination requiring additional investigation and/or cleanup as necessary. However, because there would be less commercial, business professional, and industrial/light-industrial development under this alternative, the magnitude of the less-than-significant impacts would be reduced.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Hazards

Development of Alternative 3 would result in the same impacts as those identified for the proposed Remainder Area related to the routine use, storage, and transport of hazardous materials within the WRSP, use of recycled water in areas accessible to the public, and location of residential uses and schools relative to sources of electromagnetic fields (EMF). Assuming hazardous materials use is directly proportional to the amount of developed square footage in the industrial/light-industrial, commercial, and business land use categories, the magnitude of hazardous materials use impacts would be reduced substantially because the amount of developed square footage for these uses would be approximately one-half that assumed for the total Remainder Area. The amount of household hazardous waste generated would be the same. Land uses within the 1,000-foot buffer around the PGWWTP would be restricted to nonresidential uses, identical to the proposed Remainder Area. However, because no development would occur west or north of the PGWWTP, potentially significant impacts related to the need for designating a buffer area for the proposed energy facility and additional fire station in the Remainder Area would not occur. Chemical deliveries to the PGWWTP would temporarily be routed through a residential area along Hayden Parkway, as described for the proposed Remainder Area.

Soil and Groundwater Contamination

Under the proposed Remainder Area, past uses at the Fiddyment Ranch property were identified as a potential source of soil contamination requiring additional investigation and/or cleanup as necessary. Such investigation and/or cleanup would be required for Alternative 3 as well.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Public Services

Because the number of residents under Alternative 3 is almost identical to the proposed WRSP and SOI Amendment (a reduction of 278 residents, or 1.3 and 0.70 percent, respectively), the demand for public services, particularly staffing, are almost identical. Therefore, this section focuses on differences between Alternative 3 and the proposed WRSP and SOI Amendment that are not related to the size of the resident population.

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Fire Protection

Under Alternative 3, existing Fire Station #5 on Pleasant Grove Boulevard would serve the WRSP Area until other stations are constructed (Impact 4.10-2). Once it is constructed, the Blue Oaks Station, Station #8, would also serve the WRSP Area. A new station would not be required within the WRSP Area because the four-minute response time standard could be met with the existing stations.

Schools

As fewer students would be generated under Alternative 3, demand for schools would decrease compared to the proposed WRSP. Therefore, the impact on schools would be less severe than under the proposed WRSP.

Parks and Recreation

Under Alternative 3, approximately 185 acres of new parks in total, with 62 acres each of Neighborhood/Community Park; Citywide Park/Community; and Open Space/Passive parks would be required to serve the new population. Alternative 3 would provide approximately 1,744 acres of open space and 39.9 acres of active park uses within the WRSP Area. While Alternative 3 would provide enough open space to meet the City's requirement, it would not meet the requirement for provision of Neighborhood/Community Park and Citywide Park/Community uses. Therefore, the impact on park and recreation facilities would be more severe than under the proposed WRSP, and would require mitigation through additional park dedication and/or in lieu fees.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

New Mitigation Required Only of Alternative 3

- MM 6-1: Provide additional parkland and/or in-lieu fees to achieve City standards. (Alternative 3, WRSP)
- MM 6-2: Provide additional schools and/or in-lieu fees to accommodate the number of students generated (Alternative 3, WRSP).

For high-density residential has a higher student-generation rate (x per household vs. x per household for low- and medium-density residential.

Remainder Area

Fire Protection

Under Alternative 3, development would not be allowed north of Pleasant Grove Creek (east of Fiddyment Road) or west of the PGWWTP in the Remainder Area. As a result, development would be confined to the eastern portion of the Remainder Area, closer to existing development in the City of Roseville. Because less development would occur, there would be less demand for fire protection. The Remainder Area would be served by the existing Fire Station #5 on Pleasant Grove Boulevard and, once it is constructed, the Blue Oaks Station, Station #8.

Schools

Under Alternative 3, 7,400 dwelling units would be developed in the Remainder Area. Assuming that approximately 20 percent of the dwelling units in the Remainder Area would be within the RCSD and the RJUHSD, and 80 percent would be within the CUSD, development of Alternative 3 would result in the generation of 2,992 students in the RCSD, 1,758 students in the RJUHSD and 1,188 students in the CUSD in the Remainder Area. Given that elementary, middle, and high schools would be developed in and near the Remainder Area, the impact would be similar to the proposed Remainder Area.

Parks and Recreation

Alternative 3 would require approximately 165 acres of parkland, with 55 acres each of Neighborhood/Community Park; Citywide Park/Community; and Open Space/Passive Parks in the Remainder Area. Alternative 3 is assumed to include 112 acres of parks in the Remainder Area, plus extensive open space. While the amount of parkland would meet City standards, it would not be as extensive as the amount of parkland provided by the proposed Remainder Area (196 acres) for a similar population.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Public Utilities

West Roseville Specific Plan

Water Supply

Water demand under Alternative 3 would be reduced to 5,500 AF/year. As discussed in Section 4.11, Public Utilities, the City would have available approximately 4,080 AF/year, and the WRSP would have 3,200 AF/year available from San Juan Water District in wet years. Recycled water could provide the additional supply. In wet years, there would be enough supply to meet demand (Impact 4.11-1), but not in dry years, when the SJWD supply would not be available (Impact 4.11-2). Therefore, the impact would remain potentially significant and unavoidable, but less severe than under the proposed WRSP.

As shown in Table 6-6, water supply for the WRSP would be reduced to 5,500 AF/yr under Alternative 3, which could be supplied by a combination of water available from the City and SJWD in wet years and City water and recycled water in dry years. In addition, the demand for water treatment, storage, and conveyance would be reduced compared to the proposed WRSP (Impacts 4.11-1 through 4.11-4).

Recycled Water

Alternative 3 would generate less demand for recycled water, because the amount of undeveloped open space would increase substantially (Impact 4.11-5).

Wastewater

Development under Alternative 3 would require the installation of wastewater collection and conveyance facilities (Impact 4.11-7). Because this alternative would develop 1,093.9 fewer acres, the area of land to be disturbed during installation of such facilities to serve the developed area would be less than the proposed WRSP (Impact 4.11-6).

Alternative 3 would generate an approximately eight percent decrease in wastewater flows compared to the proposed WRSP. This alternative would generate flows of 2.4 mgd. Considering the 1.1 mgd of capacity allocated to the VBO in the WWMP EIR, the net increase in capacity for this alternative is 1.3 mgd. The capacity to the PGWWTP would still need to be increased beyond the WWMP EIR-considered capacity of 20.7 mgd. While the impacts for this alternative for Impacts 4.11-7 and 4.11-8 would be slightly reduced, the mitigation measures for the proposed project would need to be applied.

Solid Waste

Solid waste generation under Alternative 3 would be approximately 380 tons per year less than the proposed WRSP. The slight decrease in waste generated is due to the change in mix of nonresidential uses under Alternative 3. Development under Alternative 3 would therefore have a slightly less severe impact than the proposed WRSP (Impact 4.11-8).

In addition, the amount of materials transported to the MRF would be slightly less under Alternative 3. Waste generated during construction under Alternative 3 would be similar to construction waste generated under the proposed WRSP (Impacts 4.11-9 and 4.11-10).

Electricity and Natural Gas

Under Alternative 3 electricity required in the WRSP would be approximately 16.4, or 27 percent fewer MW per year less than the proposed WRSP (Impact 4.11-11), and fewer electrical lines would be needed due to the land use configuration. However, development under Alternative 3 would require approximately 843,540 therms of natural gas more (or approximately 4.8 percent) than the proposed WRSP (Impact 4.11-12). The increase in demand for natural gas is the result of the change in the mix of nonresidential uses.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Water Supply

Water demand under Alternative 3 would be approximately 826 AF/year less than the proposed Remainder Area (see Table 6-6). This alternative would result in a less severe impact than the proposed Remainder Area, but would still be significant and unavoidable.

Recycled Water

Alternative 3 would generate less demand for recycled water, because higher-density residential uses require less landscaping, and because the amount of undeveloped, nonirrigated open space would increase substantially (Impact 4.11-5).

Wastewater

Development of the Remainder Area under this alternative would result in the need for installation of wastewater collection and conveyance infrastructure, including off-site infrastructure. Because this alternative would have 2,062 more acres in open space than the proposed Remainder Area, the impacts of installation of wastewater infrastructure under this alternative would be less severe than the proposed Remainder Area.

Flows anticipated to be generated by development of the Remainder Area under Alternative 3 would be 2.1 mgd. This is 0.2 mgd less than the proposed project Remainder Area (Impact 4.11-7). The capacity to the PGWWTP would need to be increased beyond the WWMP EIR-considered capacity of 20.7 mgd. While the impacts for this alternative for Impacts 4.11-7 and 4.11-8 would be slightly reduced, the mitigation measures for the proposed project would need to be applied.

Solid Waste

Under Alternative 3, development of the Remainder Area would be approximately 1,328 tons per year less than under the proposed Remainder Area (Impact 4.11-9). Impacts on the landfill under Alternative 3 would be less severe than those under the proposed project Remainder Area.

In addition, the amount of materials transported to the MRF would be increased and waste generated during construction of the Remainder Area under Alternative 3 would be greater than under the proposed Remainder Area (see Impacts 4.11-9 and 4.11-10).

Electricity and Natural Gas

Under Alternative 3, development would require approximately 23.3 MW per year less than the proposed Remainder Area. Development of the Remainder Area under Alternative 3 would require approximately 4,163,760 therms of natural gas less than the proposed Remainder Area.

In summary, public utilities impacts would be substantially reduced under Alternative 3 because the amount of development would be less than under the proposed Remainder Area.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Hydrology, Water Quality, and Groundwater

West Roseville Specific Plan

Stormwater Runoff (Peak Flows)

Under Alternative 3, approximately 55 percent of the proposed WRSP Area would remain as open space and would not be developed with new impervious surfaces. As a result, the rate and amount of stormwater discharged to the Pleasant Grove Creek and Curry Creek watersheds would be proportionately reduced compared to the proposed WRSP (Impact 4.12-1). This would reduce the magnitude of the peak flow impacts identified for the WRSP for both Pleasant Grove Creek and Curry Creek.

Stormwater Runoff (Volume)

The volume of stormwater being discharged under Alternative 3 would be proportionately reduced due to the reduction in developed acreage. However, runoff would still need to be directed to and stored in the planned regional retention basin in the Reason Farms property to the west (Impact 4.12-2).

Floodplain Fill

Alternative 3 would result in a floodplain fill impact similar to the WRSP because there is a small area north of Pleasant Grove Creek proposed for development under this alternative that would need fill placement (Impact 4.12-3).

Water Quality

Because only about 45 percent of the WRSP Area would be developed with new impervious surfaces, the magnitude of the construction site and post-development urban runoff water quality impacts would be reduced compared to the proposed WRSP (see Impacts 4.12-4 and 4.12-5).

Groundwater

Under Alternative 3, less groundwater would be used in dry years, so impacts on the aquifer would be reduced (Impact 4.12-6). Groundwater recharge impacts would also be reduced compared to the proposed WRSP, because more land would be left in open space (Impact 4.12-7).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Stormwater Runoff (Peak Flows)

Under Alternative 3, approximately 56 percent of the total Remainder Area would remain as open space and would not be developed with new impervious surfaces. As a result, the rate and amount of stormwater discharged to the Pleasant Grove Creek and Curry Creek watersheds would be proportionately reduced (Impact 4.12-1). This would reduce the magnitude of the peak flow impacts identified for the Remainder Area for Pleasant Grove Creek. Further, there would be no contribution from the southern Remainder Area to the Curry Creek shed, which required mitigation under the Remainder Area to address the effects of combined flows.

Stormwater Runoff (Volume)

The volume of stormwater being discharged under Alternative 3 would also be proportionately reduced, as compared to the proposed Remainder Area, but this water would still need to be directed to and stored in the planned regional retention basin in the Reason Farms property to the west (Impact 4.12-2).

Floodplain Fill

Alternative 3 would not result in a floodplain fill impact in the Remainder Area (Impact 4.12-3).

Water Quality

Because the amount of development would be reduced substantially under Alternative 3, the magnitude of the construction site and post-development urban runoff water quality impacts would be reduced compared to the proposed Remainder Area (Impacts 4.12-4 and 4.11-5).

Groundwater

Under Alternative 3, less groundwater would be used in dry years, so impacts on the aquifer would be reduced (Impact 4.12-6). Groundwater recharge impacts would also be reduced compared to the proposed WRSP, because more land would be left in open space (Impact 4.12-7).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Aesthetics and Visual Resources

West Roseville Specific Plan

Visual Character

Under Alternative 3, areas north of Pleasant Grove Creek and west of the Wastewater Treatment Plant would be retained as open space. Like the proposed WRSP, development of this alternative would be an extension of the urban edge that exists east of the WRSP (the existing City of Roseville). Development of Alternative 3 would be visually compatible with surrounding developed uses, but would substantially and permanently alter the existing visual character of the site by introducing an extensive roadway network, houses, offices, commercial and industrial uses, and other urban facilities into an undeveloped area (Impact 4.13-1).

Light and Glare

Although Alternative 3 would reduce the amount of land developed as urban uses, it would still result in a substantial change in the amount of light generated on the site, and alter nighttime views of the site (Impact 4.13-2). Light would be generated by residences, businesses, industrial areas, streetlights, and vehicles, all of which would increase the ambient nighttime illumination level. In addition, schools with sports facilities could use high-intensity lights for playing fields, which would create a large amount of nighttime light. With development of this alternative, views to the WRSP Area that are currently uninterrupted by light from the site would change to views of a developed, lit environment.

Impacts on light and glare for Alternative 3 would be somewhat reduced in comparison to the Proposed Project, because the amount of area to be developed with light and glare-producing uses would be reduced, and there would not be a sports complex.

Other Visual Impacts

As with the proposed WRSP, impacts on visual compatibility and scenic views would be less than significant under Alternative 3.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Alterations to Visual Character

Under Alternative 3, development in the Remainder Area would be substantially reduced, and approximately 1,073 acres of currently undeveloped grassland would be converted to urban uses, preserving approximately 1,292 acres of open space. Approximately 49.3 acres would be designated for parks. While the City of Roseville Community Design Guidelines would beneficially guide the scale and consistency of architecture, as well as the configuration of site improvements and landscaping, they would not preserve the existing character of the project site (Impact 4.13-1).

Light and Glare

Impacts on light and glare under Alternative 3 would be somewhat reduced in comparison to the proposed Remainder Area, because the amount of land to be developed with light and glare-producing uses would be reduced (Impact 4.13-2). Nonetheless, the Remainder Area, which currently lacks light and glare sources, would still be visibly changed in the context of nighttime lighting and daytime glare.

Other Visual Impacts

As with the proposed Remainder Area, impacts on visual compatibility (Impact 4.13-3) and scenic views (Impact 4.13-4) would be less than significant under Alternative 3.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Conclusions

Alternative 3 would be environmentally superior to the proposed WRSP and SOI Amendment, because substantially fewer acres would be developed. In most cases, the impacts of Alternative 3 would be the same as or reduced compared to the proposed WRSP and SOI Amendment. Several impacts that would be significant and unavoidable under the proposed WRSP and SOI Amendment would not occur or would be less than significant under Alternative 3, including:

- Conversion of agricultural land to developed uses (Impact 4.1-4), and
- Increased traffic on City of Rocklin roadways (Impact 4.3-4 for the SOI Amendment only).

In addition, several significant and unavoidable impacts would be more severe under Alternative 3, including:

- Loss of oak trees (Impact 4.7-8 for the WRSP only), loss of historically significant resources (Impact 4.8-2 for the WRSP only)
- Loss of historically significant resources (Impact 4.8-2 for the WRSP only)
- Impacts of increased solid waste generation on landfills (Impacts 4.11-9 and 4.11-10)

For the most part, Alternative 3 would meet the project objectives. This Alternative does not include low-density residential land uses pursuant to Objectives 2 and 6, or regional parks to create an Activity Core. Alternative 3 also does not include adequate school facilities (Objective 7 or 3) or preserve the oak woodlands and the Fiddyment Ranch complex (Objective 7f). The reduction in nonresidential development could preclude achievement of Objective 10, calling for a mix of uses and facilities that are fiscally feasible to implement and do not negatively impact the City's General Fund.

6.2.7 Alternative 4: Reduced Development Alternative

Under this alternative, development levels would be approximately 80 percent of the levels proposed in the WRSP and Remainder Area. No development would occur north of the Placer Parkway alignment shown in Figure 6-4 (Alternative 4: Reduced Development). In addition, the western edge of the SOI Amendment Area would remain in open space. Approximately 116 acres immediately east of the PGWWTP would also remain in open space in order to preserve wetlands. Therefore, open space under Alternative 4 would increase from 1,014 to 1,526 acres. No Village Center or large regional parks would be created. The land use assumptions for this alternative are shown in Table 6-33.

Alternative 4 would not include the sports complex or Fiddyment Park (including the amphitheatre). A smaller regional park would be provided immediately east of the future Roseville Energy Park site.

Under this alternative, it is assumed that Placer Parkway would be constructed through the northern portion of the WRSP and SOI Remainder Areas. An alignment for Placer Parkway has not been selected, but two of the potential study alignments being examined by the Placer County Transportation Planning Agency (PCTPA) would transect the SOI Amendment Area. One alignment would bisect the WRSP Area from north to south. The other alignment would occupy the upper third of the Fiddyment Ranch portion of the WRSP Area, and the SOI Remainder Area. PCTPA requested that an alternative with one of the study alignments be studied in this EIR. Therefore, Alternative 4 provides for the 1,000-foot Placer

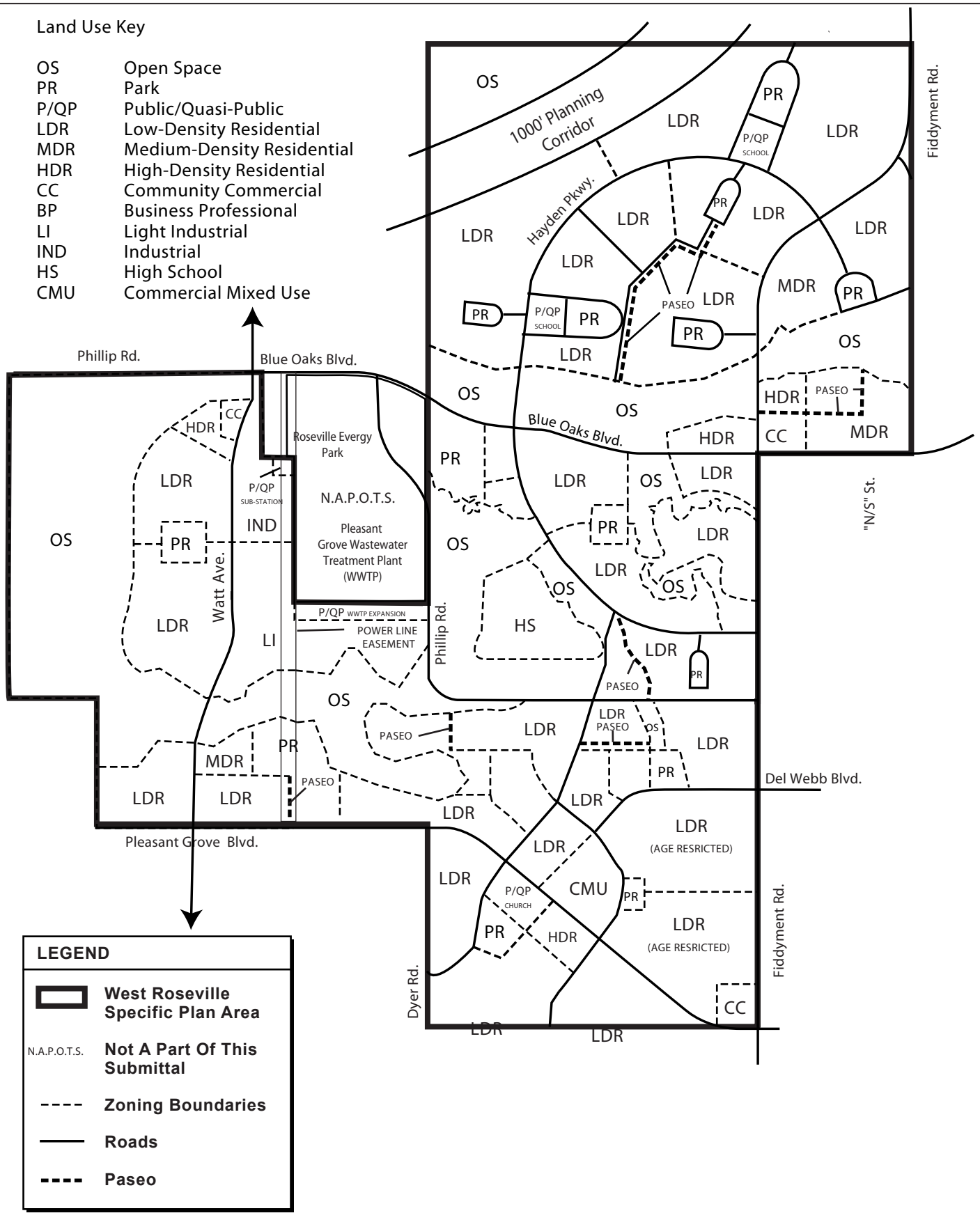


FIGURE **6-4**

Alternative 4: Reduced Development

Not to Scale

10659-00

***Source*:** Morton & pitalo, Inc., 2003; EIP Associates, 2003

City of Roseville

Table 6-33 Alternative 4: Reduced Development

Zoning	Land Use	WRSP		Remainder Area		SOI Amendment Area	
		Acres	DUs	Acres	DUs	Acres	DUs
OS	Open Space	705.7		820.4		1,526.1	
PR	Park and Recreation	218.9		156.7		375.6	
P/QP	Public/Quasi-Public	134.1		42.7		176.8	
LDR	Low-density Residential	1,363.4	4,370.0	1,059.7	4,236	2,423.1	8,606
LDR	Low-density Residential (Age Restricted)	153.0	750.0			153.0	750
MDR	Medium-density Residential	102.2	770.0	66.1	496	168.3	1,266
HDR	High-density Residential	42.2	755.0	66.5	1190	108.7	1,945
CC	Community Commercial	66.8	100.0	54.1		120.9	100.0
BP	Business Professional			10.1		10.1	
LI	Light Industrial	85.3		7.0		92.3	
IND	Industrial	33.6				33.6	
R/W	Road right-of-way	133.3		81.9		215.2	
OS/Paseo	Paseo	14.2				14.2	
	Planning Corridor	114.1				114.1	
	Total	***3,166.8***	***6,745.0***	***2,365.2***	***5,922***	***5,540***	***12,667***

SOURCE: EIP Associates 2003

Parkway corridor shown in Figure 6-4. This does not analyze the impacts of constructing Placer Parkway, although it is treated as a particular land use within the WRSP and SOI Remainder Areas.

Off site infrastructure would be similar to the proposed WRSP and SOI Amendment, but slightly smaller in scale.

Alternative 4 land uses are shown in Figure 6-4. Table 6-33 shows the land use assumptions for Alternative 4.

Land Use and Agricultural Resources

West Roseville Specific Plan

Land Use Compatibility

The mix of land uses under Alternative 4 would be the same as under the proposed WRSP, with residential uses occurring adjacent to schools, commercial and industrial uses, and agricultural areas (Impacts 4.1-1 and 4.1-2). Therefore, the land use compatibility impacts would be the same as under the proposed WRSP. Because fewer residents would occupy the area and there would be no regional sports complex or amphitheatre, the impact would be less severe under Alternative 4.

As with the proposed WRSP, under Alternative 4, the PGWWTP would have a 1,000-foot nonresidential buffer, so there would be no land use conflicts with this use (Impact 4.1-3).

Loss of Farmland

Under Alternative 4, the amount of open space would increase slightly, by about 34.3 acres or 5.1 percent. The area designated Prime Farmland would still be developed under this alternative (Impact 4.1-4). However, there would be a corresponding reduction in the amount of grazing land converted to urban uses so the impact would be slightly less severe than under the proposed WRSP.

Access

As with the proposed WRSP, Alternative 4 would allow interim access to the residential parcels north of the WRSP (Impact 4.1-5).

Consistency with City's General Plan and Zoning Code

For Alternative 4, the WRSP would include a Village Center land use designation. Currently, the City's General Plan does not include a land use designation for Village Center. However, as part of the WRSP, the City will amend its General Plan to include the new land use designation (Impact 4.1-6).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Land Use Compatibility

Under Alternative 4, the location and configuration of land uses in the Remainder Area have not been determined, but it is assumed they would be a continuation of the types of land uses in the WRSP Area (e.g., residential, commercial, industrial). Therefore, there is the possibility that future development could include residential land uses near commercial and industrial operations, agricultural uses, and schools (Impacts 4.1-1 and 4.1-3). However, the impacts would be slightly less severe than under the proposed Remainder Area, because there would not be a regional sports complex or amphitheatre under Alternative 4, and because there would be a 20 percent reduction in the number of residents who could be exposed to nuisances.

Loss of Farmland

Under Alternative 4, open space would increase by 490 acres, so there would be less conversion of grazing land than under the proposed Remainder Area (Impact 4.1-4).

Access

As with the proposed Remainder Area, Alternative 4 would provide interim access to the residential parcels north of the Remainder Area (Impact 4.1-5).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Population, Employment, and Housing

West Roseville Specific Plan/Remainder Area

Jobs/Housing Balance

Under Alternative 4, the number of residential units would be 20 percent lower than under the proposed WRSP. Approximately 3,389 jobs would be created under Alternative 4, along with 8,499 employees. As a result, the City's jobs/housing ratio would be 1.42 percent, compared to 1.63 percent for the proposed WRSP (Impact 4.1-1). In either case, more than 80 percent of WRSP Area residents would live within eight miles of their home, and more than 60 percent would live within six miles. Because the jobs/housing ratio would decrease, Alternative 4 would have a slightly improved impact compared to the proposed WRSP.

Under Alternative 4, the amount of residential and employment-generating uses within the Remainder Area would be lower than under the proposed SOI Remainder Area, because the amount of development would be reduced (Impact 4.2-1). With development of Alternative 4 in the SOI Amendment, there would be a total of 42,472 jobs[500] for 54,868 employees citywide, resulting in at least 77.4 percent of the City population able to live within eight miles of employment opportunities. Given that Alternative 4 would generate approximately 5,216 jobs, and that several major employment centers are located within three to four miles of the project site (e.g., Washington Boulevard and SR-65 Corridors), with additional

employment areas in north Sacramento and east of I-80, the additional jobs needed to meet the City's ordinance should be available. However, the impact would be more severe than under the proposed Remainder Area, because the jobs/housing ratio would be lower.

Affordable Housing

Ten percent of residential units would be made affordable under Alternative 4, which is consistent with City policy (Impact 4.2-2). The impact on affordable housing would be the same as the proposed WRSP, because the same proportion of housing would be considered affordable.

Displacement of Existing Housing

Similar displacement of existing housing would occur under Alternative 4 as the proposed WRSP and Remainder Area, and would be less than significant.

Inducement of Substantial Population Growth

Under this alternative, development levels would be approximately 80 percent of the levels proposed in the WRSP and Remainder Area. While this alternative would decrease the amount of population growth compared to the proposed project, the increase would still be substantial and this impact would remain significant and unavoidable.

Consistency with Adopted City Policies

Alternative 4 proposes a similar mix of uses with the exception of the regional sports complex and Fiddyment Park. All development would remain consistent with applicable adopted City policies, the same as with the proposed project. This impact would remain less than significant under Alternative 4.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

[500] Based on 2000 U.S. Census data indicating there were 37,256 jobs in the City, plus 5,216 jobs created by the SOI Amendment.

Transportation and Circulation

In order to assess the relative impacts of Alternative 4 on traffic conditions, comparison is made with the proposed WRSP and SOI Amendment, which has the highest number of vehicle trips, and Alternative 2, which has the lowest.

SOI Amendment/Remainder Area

City of Roseville Roadways

Trip generation for the SOI Amendment Area under of Alternative 4 would be about 126,700 daily vehicle trips. This compares to 168,900 for the proposed SOI Amendment and 89,200 for Alternative 2. Buildout of the proposed SOI Amendment would cause a significant level-of-service impact at 12 intersections in the City of Roseville under 2020 conditions. Alternative 2 would result in significant level-of-service impact at seven intersections in the City of Roseville under cumulative conditions. Therefore, it is anticipated that the number of intersections in the City of Roseville with significant impacts under Alternative 4 would be between seven and 12 (Impact 4.3-1).

Placer County Roadways

Both the proposed SOI Amendment and Alternative 2 would result in significant level-of-service impacts on both Walerga Road and Watt Avenue between Baseline Road and PFE Road (Impact 4.3-3). It is anticipated that significant impacts would also occur on these roadway segments under Alternative 4.

City of Rocklin Roadways

Both the proposed SOI Amendment and Alternative 2 would result in a significant level-of-service impact on one segment of roadway in the City of Rocklin: Sunset Boulevard between Park Boulevard and Stanford Ranch Road (Impact 4.3-4). It is anticipated that the level of impact would also occur on this roadway segment under Alternative 4, although the severity would be reduced relative to the proposed SOI Amendment.

State Highways and Sutter County

Neither the proposed SOI Amendment nor Alternative 2 would result in significant level-of-service impacts on Sutter County roadways in the study area (Impact 4.3-5). The same impacts would occur on those roadway conditions for Alternative 4, although the severity would be reduced compared to the proposed SOI Amendment.

As with the proposed WRSP, impacts on State highways would be the same as the proposed SOI Amendment, but less severe under Alternative 4 because of the reduced number of trips (Impact 4.3-2).

Bicycle Circulation and Transit

The demand for bicycle circulation and transit would be slightly reduced compared to the proposed SOI Amendment, because the number of people generated by Alternative 4 would be lower than under the proposed SOI Amendment (Impacts 4.3-7 and 4.3-8).

Pedestrian District Overlay

Alternative 4 does include a Village Center, so the proposed General Plan Amendment to add a Pedestrian District policy would also be included, and impacts on traffic congestion would be identical to the proposed SOI Amendment and Remainder Area.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

West Roseville Specific Plan

City of Roseville Roadways

It is anticipated that the impacts of Alternative 4 would lie between the impacts of the proposed WRSP and the Open Space Alternative (Alternative 2). The trip generation of Alternative 4 would be about 67,400 daily vehicle trips. This compares to 89,900 for the proposed WRSP and 48,900 for Alternative 2. Buildout of the proposed WRSP would cause a significant level-of-service impact at eight intersections in the City of Roseville (Impact 4.3-1). Alternative 2 would result in significant level-of-service impact at four intersections in the City of Roseville under cumulative conditions. It is anticipated that under Alternative 4, the number of intersections impacted in the City of Roseville would be between four and eight.

Placer County Roadways

Both the proposed WRSP and Alternative 2 would result in significant level-of-service impacts on two segments of Placer County's roadway system (Impact 4.3-3). Both Walerga Road and Watt Avenue between Baseline Road and PFE Road would worsen from LOS C to LOS D. It is anticipated that the

same impacts would occur on these roadway segments under Alternative 4, but that the severity would be reduced compared to the proposed WRSP.

State Highways, City of Rocklin, Sutter County

Neither the proposed WRSP nor Alternative 2 would result in significant level-of-service impacts on City of Rocklin roadways or Sutter County roadways in the study area under cumulative conditions. Therefore, it is anticipated that no significant impacts would occur on those roadways under cumulative conditions for Alternative 4.

As with the proposed WRSP, there would be significant impacts on State highways, but they would be less severe under Alternative 4 than under the proposed WRSP, because of the reduced number of trips.

Bicycle Circulation and Transit

The demand for bicycle circulation and transit would be slightly reduced compared to the proposed WRSP, because the number of people generated by Alternative 4 would be lower than under the proposed WRSP (Impacts 4.3-7 and 4.3-8).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Air Quality

SOI Amendment Area

Construction Emissions

Under Alternative 4, PM10 emissions from construction are estimated to be 319.84 lbs/day, which is only 10 lbs/day less than the proposed SOI Amendment on a daily basis (Impact 4.4-1). As shown in Table 6-4, other construction emissions under Alternative 4 are estimated to be 175.19 lbs/day of ROG, 1,170.77 lbs/day of NOx, and 177.12 lbs/day of CO for the entire SOI Amendment Area (Impact 4.4-2). These emissions would be slightly lower than under the proposed SOI Amendment, but not below PCAPCD thresholds.

Operational Emissions

Operational emissions from Alternative 4 would be lower than under the proposed WRSP (Impact 4.4-3), because less development would occur. As shown in Table 6-4, ROG emissions would be reduced by approximately 42 percent compared to the proposed SOI Amendment, while NOx emissions would be reduced by 34 percent. Nonetheless, the emissions would still exceed District thresholds.

Toxic Air Contaminants

Alternative 4 would result 19 percent fewer residents with potential exposure to TACs from the PGWWTP as well as pollutants from industrial operations (Impact 4.4-4). Therefore, under Alternative 4, the impact would be similar to but less severe than under the proposed SOI Amendment.

Carbon Monoxide Emissions and Odor

As with the proposed SOI Amendment, Alternative 4 would not result in any CO violations (see Impact 4.4-5), and the impact would be less severe than under the proposed SOI Amendment. Under Alternative 4, fewer people would live in proximity to the PGWWTP than under the proposed SOI Amendment, so odor impacts would be reduced (Impact 4.4-6).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

West Roseville Specific Plan

Construction Emissions

Under Alternative 4, PM_{10} emissions from construction would be less severe than the proposed WRSP, because less land would be developed. PM_{10} emissions are estimated to be 173.83 lbs/day under Alternative 4, which would still exceed PCAPCD thresholds (Impact 4.4-1).

As shown in Table 6-4, Alternative 4 is estimated to generate 104.04 lbs/day of ROG, 735.5 lbs/day of NOx, and 92.13 lbs/day of CO, which is less than under the proposed WRSP (Impact 4.4-2). In addition, construction emissions would be substantially reduced over the life of the project, because of the reduction in development.

Operational Emissions

Operational emissions under Alternative 4 would be similar in kind to the proposed WRSP (Impact 4.4-2). Compared to the proposed WRSP, emissions would be reduced by approximately 54 percent (ROG), 49 percent (NOx), 47 percent (CO), and 52 percent (PM_{10}). Although emissions would be lower than under the proposed WRSP, the impact would remain significant under Alternative 4, because Air District thresholds would be exceeded.

Toxic Air Contaminants

Under Alternative 4, approximately 3,737 fewer people would reside in the WRSP Area (an 18 percent reduction). Therefore, there would be fewer people who could be exposed to TACs from the PGWWTP, and other industrial uses in the WRSP Area (Impact 4.3-4).

Carbon Monoxide and Odors

As with the proposed WRSP, Alternative 4 would not result in violations of the CO thresholds at any intersections. Under Alternative 4, fewer people would be living in close proximity to the PGWWTP, which is not expected to generate substantial objectionable odors. Therefore, this impact would remain similar in magnitude to the proposed WRSP.

Remainder Area

Construction Emissions

Under Alternative 4, PM10 emissions from construction are estimated to be 319.84 lbs/day, which is only 10 lbs/day less than the proposed SOI Amendment on a daily basis (Impact 4.4-1). Other construction emissions under Alternative 4 are estimated to be 175.19 lbs/day of ROG, 1,170.77 lbs/day of NOx, and 177.12 lbs/day of CO for the entire Remainder Area (Impact 4.4-2). These emissions would be slightly lower, but not below PCAPCD thresholds, than under the proposed Remainder Area.

Operational Emissions

Operational emissions from Alternative 4 would be lower than under the proposed WRSP (Impact 4.4-3), because less development would occur. As shown in Table 6-4, ROG emissions would be reduced by approximately 42 percent compared to the proposed Remainder Area, while NOx emissions would be reduced by 34 percent. Nonetheless, the emissions would still exceed District thresholds.

Toxic Air Contaminants

Alternative 4 would result 19 percent fewer residents being exposed to TACs from the PGWWTP and industrial operations in the WRSP (Impact 4.4-4). Therefore, under Alternative 4, the impact would remain the same as under the proposed Remainder Area.

Carbon Monoxide and Odors

As with the proposed Remainder Area, Alternative 4 would not result in any CO violations (Impact 4.4-5), and the impact would be less severe than under the proposed Remainder Area. Under Alternative 4, fewer people would live in proximity to the PGWWTP than under the proposed Remainder Area so potential odor impacts would be reduced (Impact 4.4-6).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Noise

SOI Amendment

Commercial and Industrial Noise

Like the proposed SOI Amendment, Alternative 4 is assumed to include a variety of land uses, including residential, commercial, and industrial in proximity to each other. The total amount of industrial and commercial uses would be similar to the proposed SOI Amendment, so noise impacts would be similar (Impacts 4.5-2 and 4.5-3), although fewer residents would be exposed to such noise.

Schools

Under Alternative 4, elementary, middle and high schools would be constructed within the SOI Amendment Area (Impact 4.5-4), similar to the proposed SOI Amendment. The high school is assumed to have a stadium, like the proposed SOI Amendment. Because residential uses would be reduced under Alternative 4, potential exposure of residents to noise from schools would be reduced relative to the proposed SOI Amendment.

Park-Related Noise

No regional parks, soccer fields, or amphitheatres would be located in the SOI Amendment Area, so noise from park activities would be substantially reduced (Impact 4.5-5).

Traffic Noise

Under Alternative 4, noise levels would be expected to exceed 60 Ldn along the same roadways as under the SOI Amendment, because traffic levels would be very similar. However, the contours would be reduced slightly, because of the reduction in traffic. Similarly, off-site increases in noise would be similar to but less severe than the proposed SOI Amendment (Impact 4.5-8, 4.5-9, and 4.5-10).

Under Alternative 4, Placer Parkway is planned to be constructed through the northern portion of the SOI Amendment Area (see Figure 6-4). Placer Parkway is anticipated to be a 4-lane roadway with 200 feet of right-of-way within a 1,000-foot planning corridor. Given the width of the roadway and the planning corridor, Placer Parkway could be built with ample setbacks from adjacent low-density residential uses. In addition, under Alternative 4, the WRSP Design Guidelines would require soundwalls along the planning corridors. The setbacks and soundwalls should be adequate to reduce noise from a 4-lane facility to acceptable levels. Therefore, the impacts of constructing residential uses in proximity to Placer Parkway would be less than significant.

Other Noise Sources

Under Alternative 4, the less-than-significant impacts due to noise from construction (Impact 4.5-1), the PGWWTP (Impact 4.5-6), and fire stations (Impact 4.5-7) would be the same as under the proposed SOI Amendment.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

Under Alternative 4, significant and unavoidable noise impacts would be similar to those of the proposed SOI Amendment, although reduced because there would be fewer residents and less traffic.

West Roseville Specific Plan

Commercial and Industrial Noise

As shown in Figure 6-4, the mix of land uses under Alternative 4 would be similar to the proposed WRSP, but the densities would increase, and the distribution would change. Commercial uses would still be located adjacent to residential areas, while industrial uses would be buffered from residential areas (Impacts 4.5-2 and 4.5-3). A smaller number of residents would be exposed to these potential noise sources, so the impacts would be reduced.

Schools

Under Alternative 4, there would be a high school, a middle school, and two elementary schools within the WRSP Area. The high school could have a stadium, which could generate substantial noise (Impact 4.5-4). Because there would be fewer residents, the impact would be reduced.

Park-Related Activities

Under Alternative 4, there would be no regional parks, so no soccer fields or amphitheatre would be constructed within the WRSP Area (Impact 4.5-5).

Traffic Noise

Under Alternative 4, noise levels would be expected to exceed 60 Ldn along the same roadways as under the SOI Amendment, because, traffic levels would not be reduced enough to make a noticeable difference in noise levels (3 dB, which would require a 50 percent reduction in trips) either on- or off site (see Impacts 4.5-8, 4.5-9 and 4.5-10).

Other Noise Sources

Under Alternative 4, the less-than-significant impacts due to noise from construction (Impact 4.5-1), the PGWWTP (Impact 4.5-6), and fire stations (Impact 4.5-7) would be the same as under the SOI Amendment.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Commercial Noise

Under Alternative 4 a variety of land uses would be located in the Remainder Area, including commercial and business/professional in proximity to residential uses. The amount of such uses would be reduced slightly, so the amount of noise from these sources would be lower under Alternative 4 (Impact 4.5-2).

Schools

Under Alternative 4, one or more schools are likely to be constructed within the Remainder Area (Impact 4.5-4). Noise levels would be similar to the proposed Remainder Area.

Park-Related Noise

No regional parks, soccer fields, or amphitheatres would be located in the SOI Amendment Area under Alternative 4, so there would be no significant park noise (Impact 4.5-5).

Traffic Noise

Under Alternative 4, project-related traffic would decrease by approximately 14,203 trips or 12.8 percent, which would not substantially alter traffic noise levels identified for the proposed Remainder Area (see Impacts 4.5-8, 4.5-9 and 4.5-10).

Under Alternative 4, Placer Parkway is planned to be constructed through the northern portion of the SOI Amendment Area (see Figure 6-4). Placer Parkway is anticipated to be a four-lane roadway with 200 feet of right-of-way within a 1,000 foot planning corridor. Given the width of the roadway and the planning corridor, Placer Parkway could be built with ample setbacks from adjacent low-density residential uses. In addition, under Alternative 4, the WRSP Design Guidelines would require soundwalls and along the planning corridors. The setbacks and soundwalls should be adequate to reduce noise from a 4-lane facility to acceptable levels. Therefore, the impacts of constructing residential uses in proximity to Placer Parkway would be less than significant.

Other Noise Sources

Under Alternative 4, the less-than-significant impacts due to noise from construction (Impact 4.5-1), industrial noise (Impact 4.5-3), the PGWWTP (Impact 4.5-6), and fire stations (Impact 4.5-7) would be the same as under the proposed Remainder Area.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

No significant and unavoidable impacts would be eliminated under this alternative.

Geology, Soils, and Seismicity

West Roseville Specific Plan

Seismic Hazards, Soils Constraints

Alternative 4 would increase the number of structures and people exposed to seismic hazard and soil constraints over that which currently exists (Impacts 4.6-1 and 4.6-2). The number of residential units would be 19 percent lower than the proposed WRSP, and the amount of commercial, business, industrial and other building square feet would be reduced as well. As with the proposed WRSP, under Alternative 4 any new structures would be constructed in accordance with the UBC and local building standards.

Soil Erosion, Topographic Changes, Slope Instability

Similar to the proposed WRSP, Alternative 4 would result in grading to accommodate new structures and infrastructure. The amount of grading under Alternative 4 would be approximately 1.2 percent less than under the proposed WRSP. As with the proposed WRSP, under Alternative 4 any grading activities would be performed consistent with a Major Grading Plan. Road crossings adjacent to stream channels would be constructed consistent with City Improvement Standards, grading permit requirements and CDFG Streambed Alteration Agreement requirements.

Loss of Top Soil

Similar to the WRSP, Alternative 4 would result in development that would not result in the loss of higher quality topsoil. However, the amount of development would be slightly reduced (Impact 4.6-6).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Seismic Hazards, Soils Constraints

As discussed above, similar to the proposed Remainder Area, under Alternative 4 any new structures would be constructed in accordance with the UBC and local building standards. Under Alternative 4, this impact would be slightly less severe than the proposed Remainder Area, because there would be fewer residents.

Soil Erosion, Topographic Changes, Slope Instability

Similar to the proposed Remainder Area, Alternative 4 would require grading to accommodate new structures and infrastructure. However, the acreage to be graded would be reduced by 11 percent. As discussed above, any grading activities would be subject to a Major Grading Plan. Road crossings adjacent to stream channels would be constructed consistent with City Improvement Standards, grading permit requirements and CDFG Streambed Alteration Agreement requirements.

Loss of Top Soil

Similar to the proposed Remainder Area, Alternative 4 would result in development that would not result in the loss of higher quality topsoil. However, the amount of development would be substantially reduced (Impact 4.6-6).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Biological Resources

West Roseville Specific Plan

Loss of Federally Protected Wetlands and "Other Waters" of the United States

Under the Alternative 4, open space would increase by approximately 5 percent, compared to the proposed WRSP. Consequently, impacts on federally protected wetlands and "other" waters of the U.S. would be similar to the proposed WRSP (Impact 4.7-1). Furthermore, only one crossing over Pleasant Grove Creek would be constructed. Loss of federally protected wetlands and "other" waters of the U.S.

would include 12.17 acres of vernal pools (compared to 13.8 acres under the proposed WRSP), as well as wet swales and channels, seasonal wetlands, and emergent wetlands.

Loss or Degradation of Habitat for Wetlands Species

As discussed above, Alternative 4 would result in loss of wetlands, including vernal pools (Impacts 4.7-2, 4.7-3, and 4.7-4). However, because fewer acres of habitat would be disturbed, this impact would be slightly less severe under Alternative 4.

Disturbance to Nesting Raptors

Under Alternative 4, the impacts on nesting raptors would be similar to the proposed WRSP (Impact 4.7-5), because construction activity would still occur in areas adjacent to Pleasant Grove Creek and a substantial portion of the oak woodland southwest of the Blue Oaks/Fiddyment intersection would be removed.

Loss of Annual Grassland Habitat

Alternative 4 would reduce the loss of annual grasslands (Impact 4.7-6), which provides foraging habitat for raptors, compared to the proposed WRSP.

Wildlife Movement Corridors

Alternative 4 would have a similar effect on migratory corridors to the proposed WRSP (Impact 4.7-7), because there would be the same number of creek crossings.

Loss of Oak Trees

Alternative 4 would remove oak trees for the Pleasant Grove Creek Crossing and require development of the area designated Fiddyment Park under the proposed WRSP (Impact 4.7-8). This area contains extensive trees, including an oak woodland, so the impacts of Alternative 4 on oak tree loss would be more severe than those of the proposed WRSP.

Loss of Riparian Habitat

Alternative 4 would require the same number of creek crossings as the proposed WRSP (Impact 4.7-9).

Off-site Infrastructure

Off-site infrastructure would be required for Alternative 4, but improvements would be scaled down to reflect the decrease in development. Nonetheless, roadway and water and sewer conveyance lines would need to be extended (Impact 4.7-10).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Loss of Federally Protected Wetlands and "Other Waters" of the United States

Under Alternative 4, the amount of open space would increase by approximately 453 acres. Nonetheless, impacts on wetlands and "other" waters of the U.S. would still likely occur as a result of such development, because of the dispersion of potential wetlands in the Remainder Area (Impact 4.7-1).

Loss or Degradation of Habitat for Wetlands Species

Future development in the Remainder Area would also be substantially reduced under Alternative 4 relative to the proposed Remainder Area. Nonetheless, wetland habitat would likely be destroyed and/or degraded (Impacts 4.7-1, 4.7-3, and 4.7-4). However, because fewer acres of habitat would be disturbed, this impact would be substantially less severe under Alternative 4.

Disturbance to Nesting Raptors

Under Alternative 4, impacts on nesting raptors in the Remainder Area would be similar to the proposed Remainder Area, because construction activity would still occur in areas most likely to contain nests, such as adjacent to Pleasant Grove Creek. Therefore, the potential for disturbing nesting raptors would be similar to the proposed Remainder Area (Impact 4.7-5).

Loss of Annual Grassland Habitat

Alternative 4 would reduce the loss of annual grasslands by increasing open space to 820 acres, from 365 acres under the proposed Remainder Area. Therefore, the loss of foraging habitat would be reduced (Impact 4.7-6).

Wildlife Movement Corridors

Under Alternative 4, there would be the same number of stream crossings and other urban barriers to wildlife movement, as for the Remainder Area (Impacts 4.7-7 and 4.7-9). Because of the reduction in development, this impact would be less severe under Alternative 4 than under the proposed Remainder Area.

Loss Of Oak Trees

Alternative 4, like the proposed Remainder Area, would result in the loss of oak trees (Impact 4.7-8).

Loss of Riparian Habitat

Alternative 4 would require the same number of stream crossings as the proposed Remainder Area (Impacts 4.7-7 and 4.7-9).

Off-site Infrastructure

The amount of off-site infrastructure needed to serve the Alternative 4 would be similar to the proposed Remainder Area (Impacts 4.7-9 and 4.7-10).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Cultural Resources

West Roseville Specific Plan

Archaeological Resources

Under Alternative 4, the amount of land to be disturbed would be similar to the proposed WRSP, but reduced slightly. As discussed in Impact 4.8-1, there could be subsurface historic or prehistoric resources in the WRSP Area.

Historic Properties

Like the proposed WRSP, Alternative 4 could affect the Fiddyment Ranch site, and would likely necessitate relocation or demolition of the Fiddyment Ranch structures because the area is designated for residential use. This would alter the context of the Fiddyment Ranch Main Complex, which appears to meet the criteria for significance as a historical resource established in section 15064.5 of the CEQA Guidelines and California and National Register criteria 1, 3, and 4. Because Fiddyment Ranch would likely be removed, the impact would be more severe under Alternative 4 (Impact 4.8-2).

Paleontological Resources

As discussed above, Alternative 4 would disturb less land than the proposed WRSP so the potential for disturbance of paleontological resources would be reduced.

Off-site Infrastructure

Under Alternative 4, off-site infrastructure would include roads, electrical infrastructure, water and sewer lines, and water tanks, similar to the proposed WRSP.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Significant and Unavoidable Impacts That Would Be More Severe under Alternative 4

Impact 4.8-2: Loss of historic resources (WRSP only)

Remainder Area

Archaeological Resources

Under Alternative 4, development in the Remainder Area would be substantially reduced (455 acres), so that less area would be subject to disturbance. Consequently, the potential for damaging or destroying archaeological resources would be reduced (Impact 4.8-1). Nonetheless, the potential exists for disturbance of unknown archaeological resources.

Historic Properties

The Remainder Area has not been surveyed, so it is not known whether it contains any historic resources. Therefore, development of Alternative 4 could affect historic resources, if present, through removal, relocation, reuse and/or substantially altering the context in which the historic resources occur (Impact 4.8-2); this impact would be similar to the proposed Remainder Area, but somewhat lessened due to the decreased amount of development under Alternative 4.

Paleontological Resources

As discussed above, the increase in open space under Alternative 4 would reduce the potential to encounter paleontological resources during construction (Impact 4.8-3).

Off-site Infrastructure

Under Alternative 4, the need for off-site infrastructure would be similar to the proposed SOI Amendment (Impact 4.8-4).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Hazardous Materials and Public Safety

West Roseville Specific Plan

Hazards

Development of Alternative 4 would result in the same impacts identified for the proposed WRSP related to the routine use, storage, and transport of hazardous materials within the WRSP Area, including emergency response, use of recycled water in areas accessible to the public, and location of residential uses and schools relative to sources of electromagnetic fields (EMF). Assuming hazardous materials use is directly proportional to the amount of developed square footage in the industrial/light-industrial, commercial, and business land use categories, the magnitude of hazardous materials use impacts would be reduced because the amount of developed square footage for these uses would be approximately 12 percent less than the proposed WRSP. With approximately 20 percent fewer dwelling units, there would also be less household hazardous waste generated under this alternative. Land uses within the 1,000-foot buffer around the PGWWTP would be restricted to nonresidential uses, identical to the proposed WRSP, so the impacts identified for the proposed WRSP would not differ under this alternative. Chemical deliveries to the PGWWTP are assumed to be temporarily routed through a residential area along Hayden Parkway, as described for the proposed WRSP.

Soil and Groundwater Contamination

Alternative 4 would be identical to the proposed WRSP, where past uses at the Fiddyment Ranch property were identified as a potential source of soil contamination requiring additional investigation and/or cleanup as necessary. However, because there would be less development under this alternative, the magnitude of the less-than-significant impacts would be reduced.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Hazards

Development of Alternative 4 would result in the same impacts identified for the proposed Remainder Area related to the routine use, storage, and transport of hazardous materials within the WRSP, use of recycled water in areas accessible to the public, and location of residential uses and schools relative to sources of electromagnetic fields (EMF). Assuming hazardous materials use is directly proportional to the amount of developed square footage in the industrial/light-industrial, commercial, and business land use categories, the magnitude of hazardous materials use impacts would be reduced because the amount of developed square footage for these uses would be approximately 45 percent less than the total Remainder Area. There would be less household hazardous waste generated under this alternative because there would approximately 20 percent fewer dwelling units.

Soil and Groundwater Contamination

Alternative 4 would be similar to the proposed Remainder Area, but reduced because of the reduction in developed area.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Public Services

West Roseville Specific Plan

Law Enforcement

Alternative 4 would result in the need for fewer additional sworn staff, compared to under the proposed WRSP, as well as other staff and facilities (Impact 4.10-1). Under Alternative 4, the impact would be less

severe compared to the proposed WRSP, because fewer officers would be needed. No police stations other than as outlined in Impact 4.10-1. Therefore, potential impacts from construction of new or expansion of existing facilities would be substantially similar to the proposed WRSP.

Fire Protection

Under Alternative 4, existing Fire Station #5 on Pleasant Grove Boulevard would serve the WRSP Area until other stations are constructed (Impact 4.10-2). Once it is constructed, the Blue Oaks Station, Station #8, would also serve the WRSP Area. A new station would be provided within the WRSP Area, so the four-minute response time standard could be met with the existing stations. Therefore, the impact would be similar to the proposed WRSP, but less severe because less development would occur. The physical impacts from construction of the new fire station would be identical to the proposed WRSP.

Schools

Alternative 4 would generate additional students who would attend RCSD and RJUHSD schools. The three elementary schools, middle school, and high school would be adequate to serve these students. Because fewer students would be generated, the impact would be less severe than the proposed WRSP. The potential impacts of construction of new school facilities or expansion of existing facilities would be substantially similar to the proposed project, as the same number of new schools is required.

Libraries

Under Alternative 4 there would be 16,517 new residents in the WRSP Area. Because the City's standard for libraries is one new branch for every 15,000 to 20,000 residents, a new library branch or expansion of existing branches could be warranted (Impact 4.10-5). The impact on libraries under Alternative 4 would be less severe than the proposed WRSP, because there would be 3,737 fewer residents. The potential impacts of construction of new library facilities or expansion of existing facilities would be substantially similar to the proposed project, as the same number of new schools is required.

Parks and Recreation

Alternative 4 would require approximately 149 acres of new parks in total, with 50 acres each of Neighborhood/Community Park; Citywide Park/Community; and Open Space/Passive parks would be required to serve the new population (Impact 4.10-6). Alternative 4 would provide 218.9 acres of active park uses within the WRSP Area, which would be ample to meet City park standards.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Law Enforcement

Alternative 4 would result in the need for additional law enforcement officers, as well as other staff and facilities (Impact 4.10-1). This impact would be similar to but less severe than if the full Remainder Area were developed. The potential impacts of construction of new police facilities or expansion of existing facilities would be substantially similar to the proposed project, as the same number of new schools is required.

Fire Protection

Under Alternative 4, the Remainder Area would be served by the existing Fire Station #5 on Pleasant Grove Boulevard and, once it is constructed, the Blue Oaks Station, Station #8. However, these stations may not be able to maintain adequate response times for the full Remainder Area. An additional station could be needed to serve the southern portion of the Remainder Area. This impact would be the same as if the entire Remainder Area were developed, but less severe because of the reduction in development. The potential impacts of construction of new fire station facilities or expansion of existing facilities would be substantially similar to the proposed project, as the same number of new schools is required.

Schools

Assuming that approximately 20 percent of the dwelling units in the Remainder Area would be within the RCSD and the RJUHSD, and 80 percent would be within the CUSD, development of the Alternative 4 Remainder Area would result in the generation of 393 students in the RCSD, 182 students in the RJUHSD and 3,030 students in the CUSD.

Under Alternative 4, fewer schools would be needed to support students generated by development in the Remainder Area. Therefore, the impact on schools for Alternative 4 would be less severe than impacts as a result of the proposed Remainder Area. Alternative 4 would provide three elementary schools, a middle school, and a high school within the WRSP Area to serve students in the RCSD and RJUHSD (Impacts 4.10-3 and 4.10-4). The potential impacts of construction of new school facilities or expansion of existing facilities would be substantially similar to the Proposed Project, as the same number of new schools is required.

Libraries

The demand for libraries would be reduced under Alternative 4, as the population would be reduced. Nonetheless, with approximately 15,000 residents, the Alternative 4 Remainder Area could warrant up to one new library branch (Impact 4.10-5). The potential impacts of construction of new library facilities or expansion of existing facilities would be substantially similar to the Proposed Project, as the same number of new schools is required.

Parks and Recreation

Alternative 4 would require approximately 144 acres of parkland, with 45 acres each of Neighborhood/Community Park; Citywide Park/Community; and Open Space/Passive Parks in the Remainder Area (Impact 4.10-6). Alternative 4 is assumed to include a total of 156.7 active parks, which would be adequate to meet this demand, similar to the Remainder Area as assumed if fully developed.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Public Utilities

West Roseville Specific Plan

Water Supply

As shown in Table 6-6, water supply for the WRSP would be reduced by 586 AF/yr under Alternative 4. As with the proposed WRSP, there would be adequate supply in wet years, and, with mitigation, in dry years (Impacts 4.10-1 and 4.10-2). In addition, the demand for water treatment, storage, and conveyance would be reduced compared to the proposed WRSP (Impacts 4.11-2 through 4.11-4).

Recycled Water

The PGWWTP would produce enough water to meet the demands of Alternative 4, and infrastructure to convey recycled water would be similar to the WRSP. The impact would be less severe than the proposed WRSP, due to reduced development.

Wastewater

As shown in Table 6-6, Alternative 4 would generate approximately 18 percent less wastewater than compared to the proposed project WRSP. The demand on the PGWWTP under this alternative would, therefore, be less severe than the WRSP, although the plant as approved would still not have adequate capacity and would require expansion. This alternative would generate flows of 2.3 mgd. Considering the 1.1 mgd of capacity allocated to the VBO in the WWMP EIR, the net increase in capacity for this alternative is 1.2 mgd. The capacity to the PGWWTP would still need to be increased beyond the WWMP EIR-considered capacity of 20.7 mgd. While the impacts for this alternative for Impacts 4.11-7 and 4.11-8 would be slightly reduced, the mitigation measures for the proposed project would need to be applied.

Development under Alternative 4 would require the installation of wastewater collection and conveyance facilities (Impact 4.11-6). Because this alternative would have 56 more acres of open space, the area of land to be disturbed during installation of such facilities to serve the developed area would be less than the WRSP.

Solid Waste

Solid waste generation under Alternative 4 would be approximately 2,081 tons less than what would be generated per year under the proposed WRSP (Impact 4.11-8). The decrease in tonnage is due to the lower amount of commercial and industrial property as compared to the proposed project. Development under Alternative 4 could substantially shorten the lifespan of the landfill over thirty years; however, the impact would be less severe than the proposed WRSP.

In addition, the amount of materials transported to the MRF would be reduced and waste generated during construction under Alternative 4 would be lower than under the proposed WRSP (Impacts 4.11-9 and 4.11-10), because less development would occur.

Electricity and Natural Gas

As shown in Table 6-6, under Alternative 4 electricity and natural gas required in the WRSP would be reduced by 36 and 15 percent, respectively (Impacts 4.11-11 and 4.11-12).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Water

As shown in Table 6-6, water supply would be reduced by only 340 AF/year in the Remainder Area under Alternative 4. As with the Remainder Area if entirely developed, the demand under Alternative 4 could not be met by existing entitlements and recycled water alone, in either wet or dry years (Impacts 4.11-1 and 4.11-2). However, the impact would be less severe, because demand would be lower under Alternative 4.

The demand for water treatment (Impact 4.11-3) and water conveyance (Impact 4.11-4) would also be reduced under Alternative 4.

Recycled Water

As with the Remainder Area if fully developed, there would be adequate recycled water to serve Alternative 4 (Impact 4.11-5).

Wastewater

Flows anticipated to be generated by development of the Remainder Area under Alternative 4 would be 1.82 mgd, which is 0.5 mgd lower than the proposed project Remainder Area assumptions, as shown in Table 6-6. The capacity to the PGWWTP would need to be increased beyond the WWMP EIR-considered capacity of 20.7 mgd. While the impacts for this alternative for Impacts 4.11-7 and 4.11-8 would be slightly reduced, the mitigation measures for the proposed project would need to be applied.

Development of the Remainder Area under this alternative would result in the need for installation of wastewater collection and conveyance infrastructure (Impact 4.11-6). Because this alternative would have more acres in open space than the proposed SOI Amendment, the area of land to be disturbed during installation of such facilities to serve the developed area would be smaller.

Solid Waste

Solid waste generation under Alternative 4 would be approximately 3,310 tons less than what would be generated per year in the Remainder Area (Impact 4.11-8). In addition, the amount of materials transported to the MRF would be reduced (Impact 4.11-9). Waste generated during construction of the Remainder Area under Alternative 4 would also be lower than under the proposed Remainder Area (see Impact 4.11-10), because less development would occur.

Electricity and Natural Gas

As shown in Table 6-6, under Alternative 4 electricity and natural gas required in the Remainder Area would be reduced (Impacts 4.11-11 and 4.11-12).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Hydrology, Water Quality, and Groundwater

West Roseville Specific Plan

Stormwater (Peak Flows)

Under Alternative 4, approximately 22 percent of the WRSP Area would remain as open space and would not be developed with new impervious surfaces (Impact 4.12-1). As a result, the rate and amount of stormwater discharged to the Pleasant Grove Creek and Curry Creek watersheds would be proportionately reduced.

Stormwater (Volume)

While the volume of stormwater being discharged would also be proportionately reduced, as compared to the WRSP, this water would still need to be directed to and stored in the planned regional retention basin in the Reason Farms property to the west (Impact 4.12-2).

Floodplain Fill

Alternative 4 would result in similar less-than-significant floodplain fill impacts as that identified for the proposed WRSP (Impact 4.12-3).

Water Quality

Alternative 4 would develop only about 78 percent of the total proposed WRSP Area with new impervious surfaces, which would also reduce the magnitude of the construction site and post-development urban runoff water quality impacts by approximately one-quarter (Impact 4.12-4 and 4.12-5).

Groundwater Use During Dry Years

Because less water supply would be required, the impact on the aquifer would be reduced under Alternative 4 (Impact 4.12-6).

Groundwater Recharge

Groundwater recharge impacts that were identified for the proposed WRSP would be reduced in magnitude because more area would remain as open space (Impact 4.12-7).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Stormwater (Peak Flows)

Under Alternative 4, approximately 28 percent of the total Remainder Area would remain as open space and would not be developed with new impervious surfaces. As a result, the rate and amount of stormwater discharged to the Pleasant Grove Creek and Curry Creek watersheds would be proportionately reduced (Impact 4.12-1). This would reduce the magnitude of peak flow impacts identified for the Remainder Area for Pleasant Grove Creek. Further, there would be no contribution from the southern Remainder Area to the Curry Creek shed.

Stormwater (Volume)

The volume of stormwater being discharged would also be proportionately reduced, as compared to the Remainder Area, but this water would still need to be directed to and stored in the planned regional retention basin in the Reason Farms property to the west (Impact 4.12-2).

Floodplain Fill

Alternative 4 would result in a similar floodplain fill impact as that identified for the Remainder Area because some development would occur in the northern Remainder Area along Pleasant Grove Creek (Impact 4.12-3).

Water Quality

Alternative 4 would develop only 72 percent of the total proposed Remainder Area with new impervious surfaces, which would reduce the magnitude of the construction site and post-development urban runoff water quality impacts (Impacts 4.12-4 and 4.12-5).

Groundwater Use During Dry Years

Because less water supply would be required, the impact on the aquifer would be reduced under Alternative 4 (Impact 4.12-6).

Groundwater Recharge

Groundwater recharge impacts that were identified the proposed Remainder Area would be reduced in magnitude because more area would remain as open space (Impact 4.12-7).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Aesthetics and Visual Resources

West Roseville Specific Plan

Alterations to Visual Character

Like the proposed WRSP, development of this alternative would be an extension of the urban edge that exists east of the WRSP (Impact 4.13-1). Under Alternative 4, the type of development would be similar to the proposed WRSP, but its extent would be reduced slightly, so the impact would be reduced compared to the proposed WRSP.

Light and Glare

Although this alternative would reduce the amount of development, Alternative 4 would still result in a substantial change in the amount of light generated on the site, and alter nighttime views of the site (Impact 4.13-2). Impacts on light and glare for Alternative 4 would be somewhat reduced in comparison to the Proposed Project, because less nonresidential development would occur.

Other Impacts

As with the proposed WRSP, land uses within the WRSP would be visually compatible with one another under Alternative 4, in compliance with the City of Roseville and WRSP Design Guidelines (Impact 4.13-3).

No scenic roads, resources, or views are identified within or adjacent to the WRSP, and the area is not designated a scenic area in the City of Roseville General Plan or the Placer County General Plan (Impact 4.13-4).

Remainder Area

Alterations to Visual Character

Under Alternative 4 there would be substantially more open space than if the entire Remainder Area were developed, but the dominant character of the Remainder Area would become urban (Impact 4.13-1).

Light and Glare

Impacts on light and glare under Alternative 4 would be somewhat reduced in comparison to the proposed Remainder Area, because of the reduction in nonresidential development (Impact 4.13-2).

Other Impacts

Development in the Remainder Area would comply with the City of Roseville's Community Design Guidelines under either Alternative 4 or development of the Remainder Area.

Because views within and adjacent to the Remainder Area are not designated scenic vistas, development of the Remainder Area would not create a substantial adverse effect on a scenic resource (Impact 4.13-4). In addition, because the northern Remainder Area would be surrounded by open space under this alternative, more opportunities for views of the Sierras and surrounding natural landscapes would be available.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Conclusions

Alternative 4 would be environmentally superior to the proposed WRSP and SOI Amendment, because substantially fewer acres would be developed. Every impact would but one be the same as or reduced compared to the proposed WRSP and SOI Amendment. An increased level of impact would occur to the landfill under the WRSP, Alternative 4 scenario. However, because the Remainder Area under the Alternative 4 scenario has a comparatively lessened impact to the landfill, the overall impact of the SOI Amendment is reduced as compared to the proposed project.

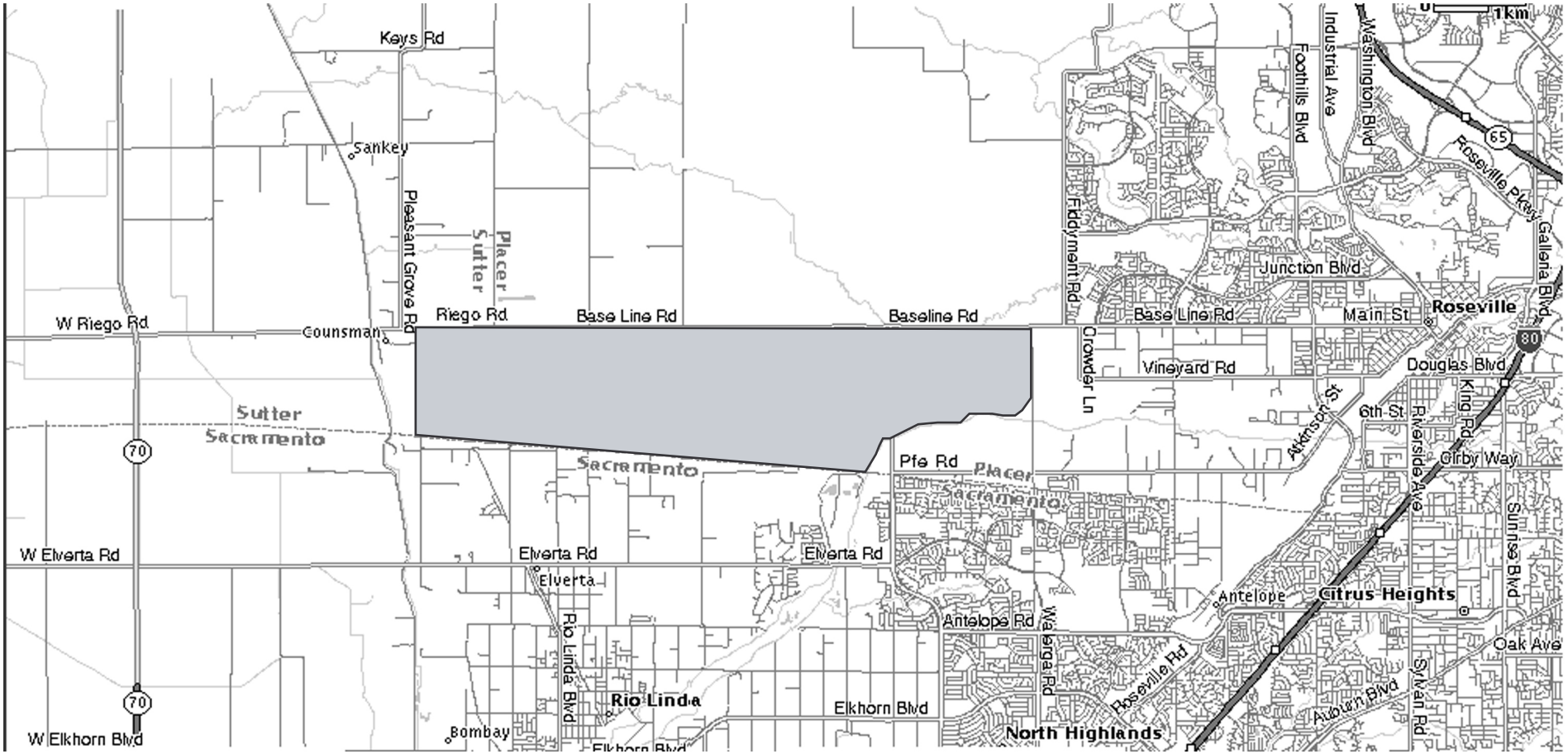
For the most part, Alternative 4 would meet the project objectives. It does not include 8,430 units pursuant to Objective 4. Further, Alternative 4 does not include a Village Center, regional parks to create an Activity Core, or preserve the oak woodlands and Fiddyment Ranch Complex pursuant to Objective 7. The reduction in development could preclude achievement of Objective 10, calling for a mix of uses and facilities that are fiscally feasible to implement and do not negatively impact the City's General Fund.

6.2.8 Alternative 5: Off-Site Alternative

Alternative 5 assumes that the project would be developed in Placer County on the site currently proposed for the Placer Vineyards project (see Figure 6-5 [Alternative 5: Off-Site Alternative).

The Alternative 5 site totals 5,012 acres compared to the proposed 5,527-acre SOI Amendment Area. However, the developable areas (all land uses except Open Space) are very similar—4,606 acres for Alternative 5 and 4,492 for the proposed SOI Amendment. In order to maintain the same program assumptions for Alternative 5, the difference of approximately 500 acres is taken from the Open Space designations for both the WRSP and the Remainder Area. Consequently, all other land uses are assumed to occupy the same acreage at the same densities. Under Alternative 5, the WRSP portion would contain 425 acres of open space, compared to 670 under the proposed WRSP. Approximately 95 acres of open space would be provided in the Remainder Area, compared to 365 acres under the proposed SOI Amendment.

The large amount of open space under the proposed WRSP and SOI Amendment reflects, in part, the number of drainages running through the SOI Amendment Area and the extent of the 100-year floodplain, which must be maintained in Open Space. In addition, the Alternative 5 site has more land that has already been disturbed by agricultural use. Therefore, the 515-acre reduction in open space can be achieved without placing development in the floodplain or substantially degrading biological habitat.



LEGEND

Proposed Project Site

FIGURE **6-5**

Alternative 5: Off-Site Alternative

Not to Scale

10659-00

***Source*:** Mapquest.com; EIP Associates, 2003

City of Roseville

EIP ASSOCIATES

The WRSP portion of Alternative 5 is assumed to occupy the eastern two-thirds of the Alternative 5 site, while the land uses assumed for the Remainder Area would occupy the western one-third.

Alternative 5 is assumed to remain in the unincorporated County, because it is not contiguous to a City.

Land Use and Agricultural Resources

West Roseville Specific Plan

Land Use Compatibility

Under Alternative 5, it is assumed the same land use mix would be developed as described for the proposed WRSP. Therefore, the impact related to internal incompatibilities would be the same (Impact 4.1-1).

The potential for incompatibilities with external uses would be also be higher under Alternative 5, because there are more residences and active agricultural operations in the vicinity of the Alternative 5 site (Impact 4.1-2). The County General Plan does require setbacks from agricultural uses, which would reduce the severity of incompatibilities between residential uses and active agricultural areas.

There would be no impact due to incompatibilities with the PGWWTP, because none of the Alternative 5 site is in proximity to the plant (in comparison, this would be a less-than-significant impact under the proposed SOI Amendment Area, as discussed in Impact 4.1-3).

Loss of Farmland

The Alternative 5 site is composed of extensive Important Farmlands and active agriculture. The eastern portion of the Alternative 5 site, where the WRSP land uses would be located, contains 33 acres of Prime Farmland, and most of the 252 acres of Farmland of Statewide Importance, and 578 acres of Unique Farmland. The amount of Prime Farmland is small enough that it could be designated Open Space, which would preserve the soils (see Impact 4.1-4). However, it may not be feasible to keep 33 acres of land in agricultural production if it is surrounded by urban uses, as would be expected to occur under this alternative. A portion of the remaining Important Farmland could be designated Open Space, but, because it is dispersed throughout the area, to do so would likely create agricultural islands within urban uses. For this reason, the loss of Important Farmland would substantially exceed the impact of the proposed WRSP.

Other Impacts

Like the proposed SOI Amendment, Alternative 5 would not preclude access to existing residences or other uses (Impact 4.1-5). Alternative 5 would require amendments to the County General Plan, rather than the City General Plan, but these would be similar to the amendments required of the proposed WRSP.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

All of the significant and unavoidable impacts that would occur under the proposed SOI Amendment would be expected to occur under Alternative 5. With the exception of Impact 4.1-3, discussed below, the significant and unavoidable impacts would be the same as the proposed SOI Amendment.

Significant and Unavoidable Impacts that Would Be More Severe Under Alternative 5

- Impact 4.1-3 (Conversion of agricultural land to developed uses)

Remainder Area

Land Use Compatibility

Under Alternative 5, the Remainder Area portion of the site would be developed with the same mix of uses as the proposed Remainder Area. Therefore, as with the proposed Remainder Area, residential uses could be located in proximity to schools, large regional parks, a stadium, commercial and light industrial uses, and agricultural activities (see Impacts 4.1-1 and 4.1-2), and the same land use incompatibilities could occur. These impacts would be the same as under the proposed Remainder Area.

Under Alternative 5, no land uses would be located in proximity to the PGWWTP (see Impact 4.1-3).

Loss of Farmland

Most of the land in the Remainder Area portion of the Alternative 5 site is designated other land or Farmland of Local importance. There is a small amount of Farmland of Statewide Importance, surrounded on three sides by Other Land. Therefore the farmland in Alternative 5 is of higher quality than the proposed Remainder Area. The loss of these farmlands would be less than significant in either case, but more severe under Alternative 5 (Impact 4.1-4).

Other Impacts

Like the proposed Remainder Area, Alternative 5 would not preclude access to existing residences or other uses (Impact 4.1-5). Alternative 5 would require amendments to the County General Plan, rather than the City General Plan, but these would be similar to the amendments required of the proposed Remainder Area (Impact 4.1-6).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

All of the significant and unavoidable impacts that would occur under the proposed Remainder Area would be expected to occur under Alternative 5, and would be of the same severity.

Population, Employment, and Housing

West Roseville Specific Plan

Jobs/Housing Balance

Under Alternative 5, the same uses would be developed as under the proposed WRSP, but they would be located within the Alternative 5 site in Placer County. Because the uses would not change, the amount of employment and residential uses would be the same as under the proposed WRSP (Impact 4.2-1).

Placer County General Plan goal 1.M states that the County should work toward achieving a jobs-housing balance.[501] However, a specific ratio is not provided. The County does not have an ordinance requiring that a certain percentage of residents live within a specified distance from employment uses.

The total number of employees in Placer County in 2000 was 123,875.[502] The total number of jobs in Placer County in 2000 was 118,647.[503] In 2000, there was a ratio of 95.8 jobs per 100 Placer County resident employees. With the addition of Alternative 5, there would be 122,158 jobs and 134,497 employees in Placer County. This equates to 90.8 jobs per 100 employees. While Alternative 5 would lower the jobs/housing ratio in Placer County from 95.8 to 90.8 jobs per employee, the ratio would still remain strong. Although Alternative 5 would not be subject to the City's ordinance, it should be noted that most

[501] Placer County General Plan Update, Housing Element, August 16, 1994, page 43.
[502] U.S. Census Bureau website, American FactFinder, http://factfinder.census.gov/bf/_lang=en_vt_name_DEC_2000_SF3_U_DP3_geo_id=05000US06061.html, accessed January 29, 2003.
[503] U.S. Census Bureau website, American FactFinder, http://factfinder.census.gov/bf/_lang=en_vt_name_DEC_2000_SF3_U_DP3_geo_id=05000US06061.html, accessed January 29, 2003.

residents would be within eight miles of employment centers, because of the large number of employment uses in the City of Roseville and northern Sacramento County. For these reasons, the impact would be similar to the proposed WRSP.

Affordable Housing

As with the proposed WRSP, it is assumed that ten percent of residential units would be affordable. This would be consistent with Placer County General Plan Housing policy 2.A.11, and would result in the same number of affordable units as the proposed WRSP. Placer County is considering an inclusionary housing ordinance, which, if adopted, would further improve the impact on affordable housing. Therefore, the impact of Alternative 5 on affordable housing would be substantially similar to the impacts of the proposed WRSP.

Displacement of Existing

Similar displacement of existing housing would occur under Alternative 5 as the proposed project, and would remain less than significant.

Inducement to Substantial Population Growth

Under this alternative, development levels would be the same as under the proposed project, and impacts related to inducement of population growth would be the same as under the proposed project, and would remain significant and unavoidable.

Consistency with Adopted City Policies

As this alternative would occur in Placer County as opposed to with Roseville City limits, County plans and guidelines would therefore apply instead of City policies. The potential for inconsistencies would increase under this alternative and could be potentially significant. Placer County is currently considering adoption of an affordable housing ordinance, but as it is unknown at this time whether the County ordinance would be as stringent as the City ordinance. It is also unknown whether 80 percent of workers would live within eight miles and 60 percent within six miles in conformance with City Resolution 83-118. This impact must be considered significant and unavoidable.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

No significant and unavoidable impacts on housing or employment would occur under either Alternative 5 or the proposed WRSP.

Remainder Area

Jobs/Housing Balance

As with the proposed Remainder Area, the western portion of Alternative 5 is assumed to develop after development of the eastern (WRSP) portion. Therefore, please see SOI Amendment for a discussion of jobs/housing balance.

Affordable Housing

The impact on affordable housing would be the same for Alternative 5 as for the proposed Remainder Area, unless the County adopted

Displacement of Existing

Similar displacement of existing housing would occur under Alternative 5 as the proposed project, and would remain less than significant.

Inducement to Substantial Population Growth

Under this alternative, development levels would be the same as under the proposed project, and impacts related to inducement of population growth would be the same as under the proposed project, and would remain significant and unavoidable.

Consistency with Adopted City Policies

As this alternative would occur in Placer County as opposed to with Roseville City limits, County plans and guidelines would therefore apply instead of City policies. The potential for inconsistencies would increase under this alternative and could be potentially significant. Placer County is currently considering adoption of an affordable housing ordinance, but as it is unknown at this time whether the County ordinance would be as stringent as the City ordinance. It is also unknown whether 80 percent of workers would live within eight miles and 60 percent within six miles in conformance with City Resolution 83-118. This impact must be considered significant and unavoidable.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

The same significant and unavoidable impacts on housing or employment would occur under either Alternative 5 as under the proposed Remainder Area.

Transportation and Circulation

The transportation impacts of Alternative 5 were assessed qualitatively under cumulative (2020) conditions.

Trip Generation

In order to determine the extent of traffic impacts under Alternative 5, DKS & Associates compared trip generation under Alternative 5 to the proposed Placer Vineyard project, then adjusted the anticipated impacts of Placer Vineyards accordingly (to correspond to the trips expected under Alternative 5).

Table 6-33 compares the estimated trip generation. Separate estimates were made for both Phase 1 and full buildout of the proposed Placer Vineyard project. Initial estimates of each project's trip generation were made. However, some of the vehicle trips generated by a major mixed-use project would remain within that project site (such as travel between the residential development and the retail uses or schools within the project). These trips are double-counted in the initial estimate, and eliminating the double-counting yields the actual estimate of the daily vehicle trips generated by the project.

The estimated trip generation for Phase 1 of the proposed Placer Vineyard project is about 21 percent greater than the estimated trip generation of the WRSP portion of Alternative 5, as shown in Table 6-34.

Phase 1 of the proposed Placer Vineyard project contains fewer dwelling units but has substantially more nonresidential uses than the WRSP portion of Alternative 5. The estimated trip generation for buildout of the proposed Placer Vineyard project is about 25 percent greater than the estimated trip generation of the full Alternative 5. The full Placer Vineyard project contains fewer dwellings but substantially more nonresidential uses than the proposed SOI Amendment.

Table 6-34 Trip Generation Comparison for Off-Site Alternative Proposed WRSP and SOI Amendment Versus Proposed Placer Vineyard Project

	Proposed Project		Proposed Placer Vineyards Project	
	WRSP	Full SOI Amendment with WRSP	Area 1	Full Project
Proposed Land Uses				
- Dwelling Units	8,430 DU	15,833 DU	7,657 DU	14,132 DU
- Nonresidential	2,219 KSF	3,455 KSF	3,652 KSF	6,514 KSF
- School Enrollment	5,200 Students	8,600 Students	5,500 Students	10,400 Students
- Parks	248 Acres	744 Acres	67 Acres	147 Acres
Estimated Daily Vehicle Trips				
- Residential	67,156	130,066	67,286	121,766
- Nonresidential	37,659	69,719	63,042	132,300
- Schools	4,980	7,800	5,100	9,640
- Parks	546	1,636	147	323
Initial Estimate of Total Daily Vehicle Trips Generated by Project	**110,341**	**209,221**	**135,575**	**264,029**
Daily Vehicle Trips with Both Trip Ends within Project Site[1]	**20,419**	**40,325**	**27,115**	**52,806**
Total Daily Vehicle Trips Generated by Project (adjusted to eliminate double-counting trips remaining internal to project site)	***89,922***	***168,896***	***108,460***	***211,223***

NOTES:
DU = dwelling unit and KSF = 1,000 square feet
1. About 23 percent of Proposed Project and 25 percent of Placer Vineyards trips were estimated to have both ends within those project sites
SOURCE: EIP Associates; DKS 2003.

SOI Amendment/Remainder Area

Local Roadway Operations

The assessment of Alternative 5 considers the impact of adding the equivalent development of the proposed SOI Amendment to a cumulative scenario that has no development on the Alternative 5 project site. While detailed traffic forecasting and level-of-service analyses were not conducted for Alternative 5, a general assessment was made based on previous traffic studies conducted by DKS in the Alternative 5 area. That general assessment indicates Alternative 5 would likely result in the following impacts:

- The level-of-service on portions of Baseline Road would degrade and likely require the widening of Baseline Road west of Watt Avenue to six lanes and additional improvements to most intersections along Baseline Road west of Foothill Boulevard.
- The level-of-service on portions of Watt Avenue would degrade and likely require the widening of Watt Avenue south of Baseline Road to six lanes and improvements to its major intersections with PFE Road.
- The level-of-service on portions of Fiddyment Road would degrade and likely require the widening of Fiddyment Road from Baseline Road to Pleasant Grove road to six lanes.

- There would be some level-of-service impacts to intersections in Roseville. There may not be feasible mitigation measures for some of these impacts.
- Additional impacts could occur on roadways in Northern Sacramento County near Alternative 5.

While the specific roadways that would be affected by Alternative 5 would differ from the proposed SOI Amendment, the magnitude of impacts would likely be similar, requiring some roadway improvements to maintain operations, where feasible, in Placer County, City of Roseville, and possibly City of Rocklin and Sacramento County. Impacts on Sutter County roadways would be expected to remain less than significant.

State Highways

The magnitude of impacts on highways would be similar to the proposed SOI Amendment, because the same number of trips would be generated.

Bicycles and Transit

The demand for bicycle and transit facilities would be similar to the proposed SOI Amendment, because land uses would be the same, and there are no bicycle or transit facilities within the Alternative 5 site at present. Trail connectivity to the City's existing trail system would not be possible because development under Alternative 5 would not be adjacent to the City.

Mitigation That Would No Longer Be Required

Traffic modeling would need to be conducted to determine which mitigation measures would no longer be required, and what new measures would be needed to address Alternative 5 traffic impacts. The overall magnitude of mitigation is expected to be similar to the proposed SOI Amendment.

Significant and Unavoidable Impacts That Would No Longer Occur

No significant and unavoidable impacts are expected to be eliminated under this alternative.

West Roseville Specific Plan

Local Roadway Operations

While detailed traffic forecasting and level-of-service analyses were not conducted for the WRSP portion of Alternative 5, a general assessment was made based on previous traffic studies conducted by DKS in the Placer Vineyards/West Placer County area. Phase 1 of Placer Vineyards covers an area completely west of Watt Avenue. In contrast, the Alternative 5 analysis assumes that WRSP land uses would be located entirely in the eastern two-thirds of the Alternative 5 site. Assuming that the proposed WRSP

land uses are developed on the Alternative 5 site commencing on the east side of that site, closest to the City of Roseville, and continuing westward, buildout of the WRSP land uses would occupy the entire portion of the Alternative 5 site east of Watt Avenue and most of the site between Watt Avenue and 16th Street to the west. The general assessment indicates the WRSP portion of Alternative 5 would likely result in the following impacts:

- The level-of-service on portions of Baseline Road would degrade and likely require the widening of Baseline Road between Watt Avenue and 16th Street to 6 lanes and improvements to its intersections with Watt Avenue and Fiddyment Road.
- The level-of-service on portions of Watt Avenue would degrade and likely require improvements to its intersection with PFE Road.
- The level-of-service on portions of Walerga Road would degrade and likely require improvements to its intersections with PFE Road and Baseline Road.
- There would be some level-of-service impacts to intersections in Roseville. There may not be feasible mitigation measures for some of these impacts.
- Additional impacts may occur on roadways in Northern Sacramento County near the Off-site Alternative

State Highways

The magnitude of impacts on highways would be similar to the proposed WRSP, because the same number of trips would be generated.

Bicycles and Transit

The demand for bicycle and transit facilities would be similar to the proposed WRSP, because land uses would be the same, and there are no bicycle or transit facilities within the Alternative 5 site at present.

Mitigation That Would No Longer Be Required

Traffic modeling would need to be conducted to determine which mitigation measures would no longer be required, and what new measures would be needed to address Alternative 5 traffic impacts. The overall magnitude of mitigation is expected to be similar to the proposed WRSP.

Significant and Unavoidable Impacts That Would No Longer Occur

No significant and unavoidable impacts are expected to be eliminated under this alternative.

Air Quality

SOI Amendment Area/WRSP/Remainder Area

Construction and Operational Emissions

Under Alternative 5, construction and operational emissions would be identical to the proposed SOI Amendment because the same amount of land would be graded (Impacts 4.4-1 and 4.4-2), and the developed land uses would be identical (Impact 4.4-3). Table 6-4 shows estimated construction and operational emissions for both Alternative 5 and the proposed SOI Amendment.

Toxic Air Contaminants

Under Alternative 5, residents and employees would be located at a greater distance from one stationary source that could emit TACS (i.e. the Pleasant Grove Wastewater Treatment Plan). However, receptors would still be exposed to TACs from industrial uses that are developed on-site (Impact 4.4-4). Therefore, this impact would be similar to but less severe in magnitude than the proposed SOI Amendment.

Other Emissions

As with the proposed SOI Amendment, local CO emissions (Impact 4.4-5) and odor impacts (Impact 4.4-6) would be less than significant.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Noise

SOI Amendment

Stationary Source Noise (Commercial, Industrial, Schools, Parks)

Alternative 5 would have the same land uses as the proposed SOI Amendment, so the noise sources and potential exposure of sensitive receptors would be the same (Impacts 4.5-1 through 4.5-5 and 4.5-7).

There would be no exposure to noise from the PGWWTP (Impact 4.5-6).

Traffic Noise

Under Alternative 5, traffic levels would be similar to the proposed SOI Amendment, so traffic noise could be expected to be similar (see Impact 4.5-8). Depending on the noise contours for interior roads and the distance to actual residences exterior and interior noise levels could exceed noise standards. This impact would be similar to the proposed SOI Amendment.

Under Alternative 5, similar increases in noise levels could be expected along existing roadways in the vicinity of the Alternative 5 site (see Impact 4.5-9).

Other Noise Sources

Because the County does not have a Noise Ordinance governing construction noise, MM 6-3 would be required to ensure that construction noise levels were less than significant.

Unlike the proposed SOI Amendment area, a portion of Alternative 5 is located between the 65 and 60 dB CNEL of the McClellan Airport (based on the Comprehensive Land Use Plan). Within this contour, aircraft noise could exceed the County standard for residential noise levels. MM 6-4 would ensure that only nonresidential uses would be located within the 60 dB CNEL contour. Given the relatively small portion of Alternative 5 that is located within this contour, there should be ample acreage outside of the contour to accommodate all residential (and some nonresidential) development.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

New Mitigation That Would Be Required for Alternative 5

MM 6-3: *Construction activities shall be limited to the hours of 7am to 7pm, Monday through Friday, and 9am to 9pm, Saturday and Sunday. Gas and diesel equipment shall be fitted with mufflers to minimize noise. (WRSP and Remainder Area)*

MM 6-4: *Prohibit any residential development between the 65 and 60 dB CNEL contour of McClellan Airport. (WRSP Only)*

West Roseville Specific Plan

Stationary Source Noise

Alternative 5 would have the same land uses as the proposed WRSP, so the noise sources and potential exposure of sensitive receptors would be the same (Impacts 4.5-1 through 4.5-5 and 4.5-7).

There would be no exposure to noise from the PGWWTP (Impact 4.5-6).

Traffic Noise

Under Alternative 5, traffic levels would be similar to the proposed WRSP, so traffic noise could be expected to be similar (Impact 4.5-8). Depending on the noise contours for interior roads and the distance to actual residences exterior and interior noise levels could exceed noise standards.

Under Alternative 5, similar increases in noise levels could be expected along existing roadways in the vicinity of the Alternative 5 site (Impact 4.5-9).

Other Noise Sources

Because the County does not have a Noise Ordinance governing construction noise, MM 6-3 would be required to ensure that construction noise levels were less than significant.

As discussed above, a portion of the Alternative 5 site is located between the 65 and 60 dB CNEL of the McClellan Airport (based on the Comprehensive Land Use Plan). MM 6-4 would ensure that only nonresidential uses would be located within the 60 dB CNEL contour. Given the relatively small portion of Alternative 5 that is located within this contour, there should be ample acreage outside of the contour to accommodate all residential (and some nonresidential) development.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

New Mitigation That Would Be Required for Alternative 5

The following measures would apply to the WRSP.

MM 6-3: *Construction activities shall be limited to the hours of 7 A.M. to 7 P.M., Monday through Friday, and 9 A.M. to 9 P.M., Saturday and Sunday. Gas and diesel equipment shall be fitted with mufflers to minimize noise.*

MM 6-4: *Prohibit any residential development between the 65 and 60 dB CNEL contour of McClellan Airport.*

Remainder Area

Stationary Source Noise (Commercial, Industrial, Schools, Parks)

Alternative 5 would have the same land uses as the proposed WRSP, so the noise sources and potential exposure of sensitive receptors would be the same (Impacts 4.5-1 through 4.5-5 and 4.5-7).

There would be no exposure to noise from the PGWWTP (Impact 4.5-6).

Traffic Noise

Under Alternative 5, traffic levels would be similar to the proposed WRSP, so traffic noise could be expected to be similar (Impact 4.5-8). Depending on the noise contours for interior roads and the distance to actual residences exterior and interior noise levels could exceed noise standards.

Under Alternative 5, similar increases in noise levels could be expected along existing roadways in the vicinity of the Alternative 5 site (Impact 4.5-9).

Other Noise Sources

Because the County does not have a Noise Ordinance governing construction noise, the MM 6-3 would be required to ensure that construction noise levels were less than significant:

The Remainder Area portion of Alternative 5 is not located within the 65 dB CNEL of the McClellan Airport (based on the Comprehensive Land Use Plan), so there would be no impact due to aircraft noise, and the impact would be identical to the proposed Remainder Area.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

New Mitigation That Would Be Required for Alternative 5

The following measure would apply to both the WRSP and the Remainder Area.

MM 6-3: *Construction activities shall be limited to the hours of 7am to 7pm, Monday through Friday, and 9am to 9pm, Saturday and Sunday. Gas and diesel equipment shall be fitted with mufflers to minimize noise.*

Geology, Soils, and Seismicity

West Roseville Specific Plan

Seismic Hazards, Soil Erosion, and Topographic Changes

As discussed in Impacts 4.6-1 and 4.6-3, compliance with laws and regulations, including the Uniform Building Code, would ensure that structures are engineered to respond to seismic activity, and that soil erosion would be controlled, so erosion and seismic impacts would be less than significant. Topographic changes would not be substantial, because the topography of the Alternative 5 site is fairly uniform. Under Alternative 5, these impacts would be similar to the proposed WRSP, because the topography, erosion potential, and seismic conditions are similar.

Soil Constraints and Slope Instability

Similar to the proposed WRSP, Alternative 5 would increase the number of structures exposed to soil constraints over what currently exists. Like the proposed WRSP Area, Alternative 5 contains soils that exhibit high shrink-swell potential in the shallow subsurface, and a moderate risk of corrosion to steel (see Impact 4.6-2). Alternative 5 also has creeks and drainages, including Dry Creek, which forms the southeast boundary. Construction in the vicinity of drainages, particularly roadway and other crossings, could be affected by steep slopes (see Impact 4.6-5). The County General Plan includes policies directing the development of specific geotechnical evaluations to identify locations where special construction and design methods would be needed. However, unlike the City of Roseville, the County does not have a regulatory requirement that site-specific geotechnical evaluations be conducted and the recommendations implemented. Therefore, soil and slope-related impacts are considered significant for Alternative 5. Implementation of MM 6-5, below, would reduce these impacts to a less-than-significant level, similar to the proposed WRSP.

Loss of Topsoil

Unlike the WRSP Area, approximately 17 percent of the Alternative 5 site is composed of Important Farmland, much of which is under cultivation. This land would have better topsoil than the proposed

WRSP Area. As discussed under Land Use and Agricultural Resources, above, a substantial portion of this farmland would be converted to urban uses under Alternative 5. Once converted, the topsoil would be permanently lost (Impact 4.6-6). This would be a significant and unavoidable impact under Alternative 5. In contrast, the loss of topsoil under the proposed WRSP would be a less-than-significant impact.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

No significant and unavoidable geologic impacts would occur under this alternative or the proposed WRSP, with the exception of Impact 4.6-6 (see below).

New Mitigation That Would Be Required for Alternative 5

MM 6-5: *Prior to final site design approval, the applicant shall prepare a geotechnical evaluation consistent with Placer County General Plan policies. The evaluation shall include, but may not be limited to, a soils index, pH and resistivity testing, and site-specific soil engineering recommendations.*

New Significant and Unavoidable Impact That Would Occur under Alternative 5

- Impact 4.6-6: Loss of topsoil due to conversion of agricultural land to urban uses (WRSP Only)

Remainder Area

Seismic Hazards, Soil Erosion, and Topographic Changes

As discussed above, compliance with laws and regulations, including the Uniform Building Code, would ensure that structures are engineered to respond to seismic activity, and that soil erosion would be controlled, so erosion and seismic impacts would be less than significant (see Impacts 4.6-1 and 4.6-4). Topographic changes would not be substantial, because the topography of Alternative 5 is fairly uniform (see Impact 4.6-3). Under Alternative 5, these impacts would be similar to the proposed Remainder Area, because the topography, erosion potential, and seismic conditions are similar.

Soil Constraints and Slope Instability

Similar to the proposed Remainder Area, Alternative 5 would increase the number of structures exposed to soil constraints. The Alternative 5 site contains soils that exhibit high shrink-swell potential in the shallow subsurface, and a moderate risk of corrosion to steel, similar to the Remainder Area (Impact 4.6-

2). Alternative 5 also has creeks and drainages, including Dry Creek, which forms the southeast boundary. Construction in the vicinity of drainages, particularly roadway and other crossings, could be affected by steep slopes (Impact 4.6-5). The County does not have a regulatory requirement that site-specific geotechnical evaluations be conducted and the recommendations implemented. Therefore, soil and slope-related impacts are considered significant for Alternative 5. Implementation of MM 6-6 would reduce these impacts to a less-than-significant level, similar to the proposed Remainder Area.

Loss of Topsoil

As discussed above, approximately 17 percent of Alternative 5 is composed of Important Farmland, much of which is under cultivation. This land would have better topsoil than the proposed Remainder Area. Once converted, the topsoil would be permanently lost, which is considered a significant and unavoidable impact under Alternative 5. In contrast, the loss of topsoil under the proposed Remainder Area would be a less-than-significant impact.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

No significant and unavoidable geologic impacts would occur under this alternative or the proposed SOI Amendment.

New Mitigation That Would Be Required for Alternative 5

MM 6-6: *Prior to final site design approval, the applicant shall prepare a geotechnical evaluation consistent with Placer County General Plan policies. The evaluation shall include, but may not be limited to, a soils index, pH and resistivity testing, and site-specific soil engineering recommendations.*

Biological Resources

West Roseville Specific Plan

Loss of Federally Protected Wetland and "Other Waters" of the United States

Area I of Alternative 5, which would be developed under Alternative 5, has been subject to a wetland delineation. Area I is reported to contain approximately 87 acres of jurisdictional wetlands, including 26.7 acres of vernal pools. Some additional wetlands are likely contained in Area II as well. The WRSP contains 63.89 acres of wetlands, including 33.91 acres of vernal pools, so potential impacts on wetlands

would be similar (Impact 4.7-1). Because there is a higher percentage of Alternative 5 that is currently under active agriculture, the quality of the habitat is lower than on the WRSP Area, which has primarily been used for grazing.

Loss or Degradation of Habitat for Wetland Species

As discussed above, a higher percentage of Alternative 5 is currently under active agriculture, so the quality of the habitat is lower than on the WRSP Area. Nonetheless, Alternative 5 could require fill of wetlands or otherwise degrade habitat for protected wetlands species, including vernal pool crustaceans, rare plants, and western spadefoot (Impacts 4.7-2 through 4.7-4).

Disturbance to Nesting Raptors

Like the WRSP Area, Alternative 5 contains oak and other trees along drainages. There is also a blue oak woodland area of approximately 19 acres. Swainson's hawk and other legally protected raptors could use these trees for nesting, and could be disturbed by construction activity (Impact 4.7-5). This would be a significant impact of similar magnitude to the WRSP impact.

Loss of Annual Grassland

Under Alternative 5, it is expected that impacts to potential foraging habitat for Swainson's hawk and other legally protected raptors would be of a similar magnitude to those under the proposed WRSP (Impact 4.7-6), because the majority of the Alternative 5 site is composed of agricultural land and grassland. Although Alternative 5 has a higher percentage of actively farmed land, this agricultural land provides good foraging habitat for many legally protected raptor species.

Wildlife Movement Corridors

Alternative 5 has a far lower likelihood of supporting any significant wildlife corridors than the proposed WRSP Area, because Areas I and II of Alternative 5 do not have the same kind of drainages. However, intermittent drainages that occur within Alternative 5 could provide some means for wildlife to pass through the area. Stream crossings would still be necessary under Alternative 5 (Impact 4.7-7).

Loss of Oak Trees

As stated above, Alternative 5 site contains oak trees along drainages, as well as a 19-acre blue oak woodland. Therefore, under Alternative 5, native oak trees would likely need to be removed to accommodate project development, although the number of native oak trees that would be lost has not been quantified. Similar to the City of Roseville, Placer County has a Tree Ordinance, which requires

replacement of protected trees that are removed (Impact 4.7-8). In the long-term, the replacement trees would mature and replace the value of the trees that were lost.

Loss of Riparian Habitat

The drainages that occur within Alternative 5 are less extensive than those within the WRSP Area. Therefore, Alternative 5 would require less extensive alteration to riparian habitat than the proposed WRSP (Impact 4.7-9).

Off-site Infrastructure

As with the proposed WRSP, development of Alternative 5 would require off-site infrastructure improvements (Impact 4.7-9).

Other Impacts

Habitat has been identified within Alternative 5 for several special-status species that would not occur within the proposed WRSP, including Valley Elderberry Longhorn Beetle (VELB), western pond turtles, and tricolored blackbirds. Alternative 5 contains stockponds, which could provide habitat for western pond turtles, and seasonal marshes, which can support tricolored blackbirds. Valley elderberry shrubs could also be present. Individuals of these species and/or their habitat could be disturbed during construction and occupation of Alternative 5. This would be a significant impact. Implementation of MM 6-7 would reduce the impact on these species to a less-than-significant level by determining whether the species and/or their habitat are present, and, if it is, requiring avoidance and/or replacement.

The creeks in the proposed WRSP Area could provide habitat for western pond turtle, but since the creeks would be in open space, there would be no impact on them under the proposed WRSP. There are no marshes within the WRSP Area, and valley elderberry shrubs have not been observed during surveys. For these reasons, the WRSP is not expected to support these three species, and the impact of Alternative 5 would be more severe than under the proposed WRSP.

Mitigation That Would No Longer Be Required

None.

New Mitigation Required under Alternative 5

MM 6-7: *Prior to disturbance of any area that provides potential habitat for western pond turtle, VELB or tricolor blackbird, protocol-level surveys shall be conducted. If the species and/or suitable habitat are present, the habitat shall be avoided, if feasible. If the habitat cannot be avoided, then no net loss of habitat shall be achieved through on- or off-site*

preservation, enhancement and recreation, participation in Placer Legacy (if adopted) or other conservation plan, and/or purchase of mitigation credits at an approved mitigation bank. (WRSP and Remainder Area).

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Loss of Federally Protected Wetland and "Other Waters" of the United States

Neither the proposed Remainder Area nor the majority of the western portion of the Alternative 5 site have been subject to a wetland delineation. Nonetheless, these areas are likely to contain wetlands, including vernal pools. Because there is a portion of the Alternative 5 site that is currently under active agriculture, the quality of the habitat is likely lower than for the Remainder Area, which has primarily been used for grazing. Nonetheless, wetlands impacts would likely occur, because typically wetlands are distributed throughout grazing land in South Placer County (Impact 4.7-1).

Loss or Degradation of Habitat for Wetland Species

As discussed above, Alternative 5 could require fill of wetlands or otherwise degrade habitat for protected wetlands species, including vernal pool crustaceans, rare plants, and western spadefoot (Impacts 4.7-2 through 4.7-4). However, because the quality of habitat is lower, the impact would be less severe under Alternative 5.

Disturbance to Nesting Raptors

As discussed above, Alternative 5 contains oak and other trees along drainages and a 19-acre blue oak woodland. Legally protected raptors, including Swainson's hawk, could use these trees for nesting, and could be disturbed by construction activity (Impact 4.7-5).

Loss of Annual Grassland

Under Alternative 5, it is expected that impacts to potential foraging habitat for Swainson's hawk and other legally protected raptors would be of a similar magnitude to those under the proposed Remainder Area (Impact 4.7-6), because the majority of the 5,000-acre Placer Vineyard site is composed of agricultural land and grassland. Although Alternative 5 has a higher percentage of actively farmed land, this agricultural land provides good foraging habitat for many legally protected raptor species.

Wildlife Movement Corridors

As discussed above, Alternative 5 has a far lower likelihood of supporting any significant wildlife corridors than the proposed Remainder Area, because Alternative 5 does not have the same kind of drainages, except along its eastern boarder (Dry Creek). These intermittent drainages could provide some means for wildlife to pass through the area. Stream crossings would still be necessary under Alternative 5 Remainder Area (Impact 4.7-9).

Loss of Oak Trees

As stated above, the Alternative 5 site contains oak trees along drainages, as well as oak woodlands. Therefore, under Alternative 5, native oak trees would likely need to be removed to accommodate project development (Impact 4.7-8).

Loss of Riparian Habitat

As discussed above, Alternative 5 would require less extensive alteration to riparian habitat than the proposed Remainder Area (Impact 4.7-9).

Off-site Infrastructure

Development of Alternative 5 would require off-site infrastructure improvements similar to that under the proposed Remainder Area (Impact 4.7-10).

Other Impacts

As discussed above, potential habitat has been identified within Alternative 5 for several special-status species that would not occur within the proposed Remainder Area, including Valley Elderberry Longhorn Beetle (VELB), western pond turtles, and tricolored blackbirds. MM 6-7, described above, would reduce the impact on these species to a less-than-significant level by determining whether the species and/or their habitat are present, and, if it is, requiring avoidance and/or replacement.

The proposed Remainder Area is not expected to support these three species, so the impact of Alternative 5 Remainder Area on these species would be more severe than under the proposed Remainder Area.

New Mitigation Required under Alternative 5

MM 6-7: *Prior to disturbance of any area that provides potential habitat for western pond turtle, VELB or tricolor blackbird, protocol-level surveys shall be conducted. If the species and/or suitable habitat are present, the habitat shall be avoided, if feasible. If the habitat cannot be avoided, then no net loss of habitat shall be achieved through on- or off-site*

preservation, enhancement and recreation, participation in Placer Legacy (if adopted) or other conservation plan, and/or purchase of mitigation credits at an approved mitigation bank. (WRSP and Remainder Area).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Cultural Resources

West Roseville Specific Plan

Archaeological Resources

A number of archaeological resources exist on the Alternative 5 site. Such resources could be damaged during grading and/or construction (Impact 4.8-1). In addition, there could be subsurface historic or prehistoric resources elsewhere in the area. Alternative 5 is similar in size to the proposed WRSP, but would have a greater likelihood of encountering archaeological resources during development, because known resources are present on the site.

Historic Properties

A number of historic buildings exist on the Alternative 5 site. The loss or alteration of historic structures or buildings would change the character of the individual building or structure, and could compromise historic context. These potential changes (removal, relocation, reuse, demolition) could reduce the integrity of the resource so that it would no longer be considered potentially historically significant (Impact 4.8-2). This would be a significant impact, similar to that of the proposed WRSP impact on the Fiddyment Ranch complex.

Paleontological Resources

Alternative 5 site contains a number of paleontological resources. Such resources might not be visible where the ground has not been disturbed and the formations exposed. However, they could be damaged or destroyed during site preparation, similar to archaeological resources, which would be considered a significant impact (Impact 4.8-3). The Alternative 5 site is similar in size to the proposed WRSP, and would have a greater likelihood of encountering paleontological resources during development, because known resources are present on the site.

Off-site Infrastructure

Off-site infrastructure associated with Alternative 5 would include roads, electrical infrastructure, water and sewer lines, and water tanks. Such infrastructure would be similar to infrastructure anticipated for the proposed WRSP, although sewer conveyance lines would need to extend farther, because the wastewater treatment plants for Alternative 5 are not adjacent to the site, as is the case with the proposed WRSP. Off-site infrastructure would probably be located within existing or planned roadway rights-of-way, and the potential for cultural resources to occur would have been addressed during the planning of those roads. However, in some cases, new infrastructure may be required in areas that are not planned for development, or have not been subject to environmental review. Because the alignments for such off-site infrastructure have yet to be determined, surveys have not been conducted. Therefore, this analysis assumes that historic, prehistoric, and/or paleontological resources could be located within areas that would be disturbed during construction of off-site infrastructure. If encountered during grading, excavation and/or construction, such resources could be damaged, destroyed, or removed, resulting in a direct loss and/or loss of integrity (Impact 4.8-4).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

The same significant and unavoidable impacts would occur under either Alternative 5 or the proposed SOI Amendment, but such impacts area expected to be more severe under Alternative 5 because more resources are present on the site.

Remainder Area

Archaeological Resources

As discussed above, Alternative 5 is known to contain a number of archaeological resources. Similar to the proposed Remainder Area, damage to or destruction of such resources during grading and/or construction would be significant (Impact 4.8-1). The Remainder Area in Alternative 5 is similar in size to the proposed Remainder Area but would have a greater likelihood of encountering archaeological resources during development, because known resources are present on the site.

Historic Properties

As discussed above, a number of historic buildings are present on the Alternative 5 site. Under Alternative 5, and similar to the proposed Remainder Area, the loss or alteration of historic structures or

buildings would change the character of the individual building or structure, and could compromise historic context (Impact 4.8-2).

Paleontological Resources

The Remainder Area in Alternative 5 is similar in size to the proposed Remainder Area, but would have a greater likelihood of encountering paleontological resources during development, because known resources are present on the site.

Off-Site Infrastructure

As discussed above, off-site infrastructure associated with Alternative 5 would include roads, electrical infrastructure, water and sewer lines, and water tanks. Because the alignments for off-site infrastructure have yet to be determined, surveys have not been conducted. If encountered during grading, excavation and/or construction, cultural resources could be damaged, destroyed, or removed, resulting in a direct loss and/or loss of integrity (Impact 4.8-4).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

The same significant and unavoidable impacts would occur under either Alternative 5 or the proposed SOI Amendment, but such impacts area expected to be more severe under Alternative 5 because more resources are present on the site.

Hazardous Materials and Public Safety

West Roseville Specific Plan

Use, Storage, and Transport of Hazardous Materials; Recycled Water, Electromagnetic Fields

Development of Alternative 5 would result in the same less-than-significant impacts identified for the proposed WRSP related to the routine use, storage, and transport of hazardous materials within the WRSP (see Impact 4.9-1 and 4.9-5), as well as emergency response (Impact 4.9-2), use of recycled water in areas accessible to the public (Impact 4.9-5), and location of residential uses and schools relative to sources of electromagnetic fields (EMF) (Impact 4.9-8). The amount of household hazardous waste generated would be identical to the proposed WRSP because the number of dwelling units would be the same. There would be no impact related to transport of chemicals through residential areas to the

PGWWTP, or the use of temporary truck routes to the PGWWTP (Impact 4.9-8), as compared to the less-than-significant impact identified for the proposed WRSP.

Soil and Groundwater Contamination

Similar to the proposed WRSP, there is a potential for encountering soil contamination due to past uses at the site, as evidence of soil and groundwater contamination, underground tanks, and buildings containing asbestos as a result of historic uses has been noted at the alternative site (Impact 4.9-5).[504] As described for the proposed WRSP, site development could encounter these materials, which if left unmanaged, could present adverse human health and environmental risks.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Use, Storage, and Transport of Hazardous Materials; Recycled Water, Electromagnetic Fields

Development of Alternative 5 would result in the same less-than-significant impacts identified for the proposed Remainder Area related to the routine use, storage, and transport of hazardous materials within the WRSP, including emergency response, use of recycled water in areas accessible to the public, and location of residential uses and schools relative to sources of electromagnetic fields (EMF). There would be no impact related to proximity to the PGWWTP. Like the Remainder Area, Alternative 5 would require additional fire protection services (Impact 4.9-2).

Soil and Groundwater Contamination

Similar to the proposed Remainder Area, under Alternative 5 there is a potential for encountering soil contamination due to past uses at the site, as evidence of soil and groundwater contamination, underground tanks, and buildings containing asbestos as a result of historic uses has been noted at the alternative site.[505] As described for the proposed Remainder Area, site development could encounter

[504] Quad Knoff, 2nd Administrative Drafts EIR, Volume III, July 2003.
[505] Quad Knoff, 2nd Administrative Drafts EIR, Volume III, July 2003.

these materials, which if left unmanaged, could present adverse human health and environmental risks (see Impact 4.9-6).

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Public Services

West Roseville Specific Plan

Law Enforcement

Under Alternative 5, the Placer County Sheriff's Department would provide law enforcement services to the WRSP Area. According to the Placer County General Plan policy 4.H.1, the Department strives to maintain a staffing ratio of one officer for every 1,000 population in unincorporated areas.[506] Policy 4.H.2 suggests an average response time of six minutes in urban areas, eight minutes in suburban areas, 15 minutes in rural areas, and 20 minutes in remote rural areas.[507]

Under Alternative 5, 8,430 residences would be constructed in the WRSP Area, generating 20,810 residents. These residents and other uses would increase demand for police protection services, to serve Alternative 5 development (Impact 4.10-1). This is fewer officers than required under the proposed WRSP, although officers for Alternative 5 would be from the Sheriff's Department, and officers for the proposed WRSP would be from the Roseville Police Department. More administrative support staff would also likely be needed to support the additional police force.

Local funding for the Sheriff's Department comes from the County General Fund, originating from a variety of sources, most notably County property taxes, Proposition 172 monies, taxes and fines.[508] This money would fund personnel expansions as well as any capital improvements that could be required by the development of Alternative 5. Such expansions could result in an effort to maintain the appropriate response times to the Alternative 5 area. Under Alternative 5, fewer police officers are needed than under the proposed WRSP. Therefore, this impact would be less severe under Alternative 5 than under the

[506] Placer County General Plan Update, Public Services Element, August 16, 1994, page 92.
[507] Placer County General Plan Update, Public Services Element, August 16, 1994, page 92.
[508] Quad Knopf, Alternative 5 Administrative Draft EIR, Volume III, March 2002, page 4-11-21.

proposed WRSP. Physical impacts form development or expansion of any police facilities would be addressed in future project-specific environmental documentation.

Fire Protection

Under Alternative 5, the Placer County Fire District, in conjunction with the California Division of Forestry and Fire Protection (CDF), would serve Alternative 5. Because Alternative 5 would be within a State Responsibility Area, CDF would also be responsible for providing wildland fire protection services.[509] The Dry Creek Fire Station, located at 8350 Cook-Riolo Road, would serve the Alternative 5 area.[510] This station is approximately two miles east of the Alternative 5 area. Response times from this station range from two to 10 minutes.[511] The Placer County General Plan's policy 4.1.2 sets a standard for fire response times of four minutes in urban areas, six minutes in suburban areas, and 10 minutes in rural areas.[512]

Alternative 5 populations as well as commercial, industrial, and public development, would need fire protection services (Impact 4.10-2). The development of Alternative 5 would likely require an additional CDF station. The development of a new station would provide an approximate five-mile separation between stations. With this separation, one fire station would be able to respond to Alternative 5 within the four-minute urban response time standard.[513]

Because of the sizable residential population projected to occur, and the need to construct a fire station, the impact on fire protection would be considered significant. Under Alternative 5, the same number of fire stations are needed as under the proposed WRSP. Therefore, the impact of Alternative 5 on fire services would be the same as under the proposed WRSP. No additional fire stations would be required compared to the proposed WRSP, the construction of which case significant environmental impacts.

Schools

Development under Alternative 5 would generate approximately 5,963 students in the Center Unified School District (CUSD), resulting in the need for approximately 5.5 elementary schools, one intermediate school and one high school (Impact 4.10-3). Alternative 5 proposes four elementary, one intermediate, and one high school within the Alternative 5 area. The designation of these sites, plus the designation of one additional elementary school site, would ensure that enough schools are provided for students in the

[509] Quad Knopf, Alternative 5 Administrative Draft EIR, Volume III, March 2002, page 4-11-7.
[510] Quad Knopf, Alternative 5 Administrative Draft EIR, Volume III, March 2002, page 4-11-7.
[511] Quad Knopf, Alternative 5 Administrative Draft EIR, Volume III, March 2002, page 4-11-7.
[512] Placer County General Plan Update, Public Services Element, August 16, 1994, page 92.
[513] Placer County, Alternative 5 Administrative Draft EIR, Volume III, March 2002, page 4-II-13.

Alternative 5 area. The impact would be more severe than the proposed WRSP because more school sites would be required. If future intermediate and high school facilities were to be constructed, construction could have potentially significant environmental impacts that would need to be addressed on a project-specific basis prior to approval of construction.

Libraries

Placer County General Plan policy 4.A.5 states, "The County shall ensure that library facilities are provided to current and future residents in the unincorporated area. The County shall also require new development to fun its fair share of library facilities."[514] The Auburn-Placer County Library Long Range Plan calls for 0.30 square feet of library space per resident.[515] Based on this ratio, Alternative 5 would generate a demand for 6,241 square feet of library space. The City of Roseville operates the nearest facility to the Alternative 5 area. This library would be subject to additional users from Alternative 5. A portion of County Capital Facility Fees is used to fund capital improvements for new libraries.[516] The potential impacts of construction of new library facilities or expansion of existing facilities would be substantially similar to the Proposed Project, as the same number of new libraries is required. Under Alternative 5, the impact on library facilities would be less severe than under the proposed WRSP because fewer library facilities would be required (Impact 4.10-5).

Parks and Recreation

Placer County General Plan policy 5.A.1 requires five acres of improved parkland and 5 acres of passive recreation area or open space per 1,000 population.[517] Alternative 5 residents would generate the need for 104 acres of active parks and 104 acres of open space. Alternative 5 would provide approximately 82 acres of Neighborhood/Community parks, 166 acres of Citywide/Community parks, and 425 acres of passive open space, for a total of 673 acres. Parkland provided by Alternative 5 would meet the requirements of the Placer County General Plan (Impact 4.10-6). Parks and recreation facilities are funded through a variety of mechanisms. The County park fee would be collected from all residential units. The applicant and residents of Alternative 5 would require the dedication of land and to pay park development fees. Under Alternative 5, the impact on parks would be the same as the proposed WRSP.

Mitigation That Would No Longer Be Required

None.

[514] Placer County General Plan Update, Public Services Element, August 16, 1994, page 80.
[515] Placer County, Alternative 5 Administrative Draft EIR, Volume III, March 2002, page 4-II-122, Table 4.II-13.
[516] Placer County, Alternative 5 Administrative Draft EIR, Volume III, March 2002, page 4-II-123.
[517] Placer County General Plan Update, Public Services Element, August 16, 1994, page 96.

New Significant and Unavoidable Impacts under Alternative 5

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Law Enforcement

Under Alternative 5, the development of 15,833 residences would result in the generation of 39,532 residents in the County; 39.5 Sheriff's Department officers would be required to serve the Remainder Area (Impact 4.10-1). This is 7.9 officers fewer than required under the proposed Remainder Area. Under Alternative 5, fewer police officers would be needed than under the proposed WRSP. Therefore, Alternative 5 would be less severe than the proposed Remainder Area. Physical impacts form development or expansion of any police facilities would be addressed in future project-specific environmental documentation.

Fire Protection

Both the CDF and Sacramento Metropolitan Fire District would respond to calls from Alternative 5. At full development of Alternative 5, it is likely that two additional fire stations would be needed to serve the population (Impact 4.9-2). The two stations would likely be Placer County Fire District stations, and would be sited to maintain a five-mile separation between stations. The addition of a Sacramento Metropolitan Fire District station would not be warranted because there are two stations located south of Alternative 5 that are within five miles of the project site. Therefore, the impact on fire protection would be considered significant. Under Alternative 5, the same number of fire stations are needed as under the proposed Remainder Area; therefore, the impact on fire services would be the same. No additional fire stations would be required compared to the proposed WRSP, the construction of which would cause significant environmental impacts.

Schools

Development under Alternative 5 would generate students in the CUSD, Elverta Joint Elementary School District (EJESD), and Grant Joint Union High School District (GJUHSD). Based on student generation rates for CUSD, approximately 11,488 students would be generated in under Alternative 5, resulting in the need for approximately 11 elementary schools, two intermediate schools and two high schools (Impact 4.10-3). The impact would be more severe than the proposed Remainder Area because more

school sites would be required. The potential impacts of construction of new school facilities or expansion of existing facilities would be substantially similar to the Proposed Project, as the same number of new schools is required.

Libraries

Alternative 5 would generate a demand for 11,862 square feet of library space, warranting an additional library branch (Impact 4.10-4). Under Alternative 5, the impact on library facilities would be less severe than under the proposed Remainder Area because fewer library facilities would be required. The potential impacts of construction of new library facilities or expansion of existing facilities would be substantially similar to the Proposed Project, as the same number of new libraries is required.

Parks and Recreation

Alternative 5 would generate the need for 198 acres of active parks and 198 acres of open space (Impact 4.10-6). The County park fee would be collected from all residential units. The applicant and residents of Alternative 5 would require the dedication of land and to pay park development fees. With the allocation of five acres of active and five acres of passive parkland per 1,000 people and the payment of appropriate development fees to pay for construction of park facilities.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Public Utilities

West Roseville Specific Plan

Water Supply

Water demand would be the same for Alternative 5 and the WRSP, but no water would be available from the City of Roseville. Therefore, there would not be enough water to meet Alternative 5 demand in either wet or dry years. MM 6-8 would be required to ensure that water was available to Alternative 5.

Wastewater

Development of Alternative 5 would require the installation of wastewater collection and conveyance infrastructure (Impact 4.11-5). Sewer service in Placer County is provided by the Placer County Facilities

Services Department. However, the site of this alternative is not currently served with public sewer. The site could be served by two wastewater treatment plants: either the Sacramento Regional Wastewater Treatment Plant (SRWWTP) (flows generated in the western 80 percent of the site) or the Dry Creek Wastewater Treatment Plant. (DCWWTP) (flows generated in the eastern 20 percent of the site).[518] Conveyance of wastewater to either of these plants could require installation of pipes and lift stations in previously undeveloped areas and, therefore, could result in impacts during construction similar to the WRSP. However, due the distance of Alternative 5 site from the two potential wastewater treatment plants, the impacts related to installation of the infrastructure would be greater due to the greater area of disturbance. In addition, conveyance of the wastewater flows generated by Alternative 5 to the SRWWTP would require the construction of the planned Rio Linda Interceptor, which is not scheduled to be completed until 2025. Even if the project proponents would construct the interceptor and its extension into Alternative 5 site, the construction would entail a substantial period of time and would require the approval of agencies that are outside of the control of Placer County as lead agency or the project proponents.[519] This would be a significant impact that would not result from development of the WRSP. For these reasons, the impacts due to installation of wastewater collections and conveyance infrastructure under Alternative 5 would be more severe than the WRSP.

It is anticipated that two wastewater treatment plants would treat the flows generated from the Alternative 5 site. Flows generated from the western portion of the site could be conveyed to the SRWWTP. However, the site is not currently within the sphere of influence of the Sacramento Regional Community Service District, and therefore, would need approval by LAFCO before the site could be served by the plant.[520] Flows from Alternative 5 have not been formally included in projections for the future of the SRWWTP plant[521] and no commitments have been made that existing or future treatment capacity exists for the purpose of serving the site.[522] Therefore, the impacts resulting from treatment of the wastewater flows generated on the western portion of the site would be of greater severity than the WRSP.

Wastewater flows generated from the eastern 890 acres of Alternative 5 would be treated at the DCWWTP. The area is currently within the service area of the plant and has adequate planned capacity to treat flows generated by the site if the site is developed in accordance with the WWMP EIR. A generation of approximately 1.8 mgd was assumed for development of this portion of the WWMP

[518] Quad Knopf, Alternative 5 EIR, Administrative Draft, Volume III, Page 4-11-52.
[519] Quad Knopf, Alternative 5 EIR, Administrative Draft, Volume III, Page 4-11-63.
[520] Quad Knopf, Alternative 5 EIR, Administrative Draft, Volume III, Page 4-11-63.
[521] Quad Knopf, Alternative 5 EIR, Administrative Draft, Volume III, Page 4-11-66.
[522] Quad Knopf, Alternative 5 EIR, Administrative Draft, Volume III, Page 4-11-65.

service area.[523] The West Dry Creek CFD has already consumed some of this allocated capacity. The entire WRSP would generate approximately 2.8 mgd (see Table 6-6). Therefore, it can be assumed that the DCWWTP would not have the necessary capacity to serve the portion of development that would be on the eastern portion of Alternative 5 site.

Because service by the DCWWTP to all of the eastern portion of the Alternative 5 site is not included in the design of the wastewater treatment facilities, and because the capacity of the SRWWTP does not include service to the western portion of the Alternative 5 site, MM 6-9 below would be needed to ensure that adequate treatment capacity is available and to reduce this impact to a **less-than-significant** level.

Solid Waste

Alternative 5 would generate approximately the same amount of solid waste as the proposed WRSP. As indicated in Impacts 4.11-9 through 4.11-11, this waste could shorten the lifespan of the landfill and the MRF. MM 4.11-10 and MM 4.11-12 call for expanding the landfill and MRF, but such action is out of the City's or County's jurisdiction. Therefore, the impact would be identical to the impact of the proposed WRSP.

Electricity and Natural Gas

Under Alternative 5, the WRSP Area would be served by Pacific Gas & Electric (PG&E). During initial construction in the WRSP Area, the 12 kV circuit along Baseline Road could serve the area. However, PG&E would need to monitor the electricity demand of Alternative 5 to determine when, and if, a new substation would be required. Demand for energy would be the same as the proposed WRSP, and could be served by PG&E. MM 4.11-4 would ensure that electrical facilities are constructed as needed, so the impact would be less than significant. Because Alternative 5 would demand the same amount of electricity as the proposed WRSP, the impact on electrical facilities would be the same.

Under Alternative 5, the demand for natural gas would be approximately 17,751,480 Therms per year, the same as under the proposed WRSP. There is currently no natural gas service to Alternative 5.[524] PG&E extends natural gas service lines as demand increases.[525] In order to serve Alternative 5, new gas distribution mains, transmission lines, and, in the future, a new natural gas regulator station, would be required to service the site. According to PG&E, there is adequate natural gas supply. Because

[523] Quad Knopf, Alternative 5 EIR, Administrative Draft, Volume III, Pages 4-11-65 and 4-11-70.
[524] Placer County, Alternative 5 Administrative Draft EIR, Volume III, March 2002, page 4-II-106.
[525] Placer County, Alternative 5 Administrative Draft EIR, Volume III, March 2002, page 4-II-106.

Alternative 5 would demand the same amount of natural gas as the proposed WRSP, the impact on natural gas facilities would be the same, after mitigation.

New Mitigation Measures Required of Alternative 5

MM 6-8: Demonstrate that adequate surface water supplies are available to meet demand.

MM 6-9: Expand the DCWWTP to be able to accept the increase in flow not considered in the WWMP EIR from Alternative 5.

Section 15126.4 (a)(1)(D) of the CEQA Guidelines requires that if a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed, but in less detail than the significant effects of the project as proposed. The following discussion describes the potential impacts of construction of improvements to the DCWWTP to provide adequate wastewater treatment to the Alternative 5 site.

With implementation of MM 6-8 and MM 6-9, impacts on water supply and wastewater infrastructure capacity under Alternative 5 would be reduced to a less-than-significant level. However, construction of new or expansion of existing wastewater infrastructure pursuant to MM 6-9 could be potentially significant. The DCWWTP is located in the southwestern portion of the City of Roseville north and west of Atkinson Parkway. Surrounding land uses include County-owned open space to the west designated for residential land use. Existing residential development exists just east of the DCWWTP. South of the DCWWTP is a City yard. In addition, Dry Creek runs in an east/west direction through the DCWWTP property. Numerous trees and extensive riparian habitat occur along Dry Creek. The DCWWTP site and surrounding topography is flat.

Impacts from construction of new or expanded wastewater infrastructure pursuant to MM 6-9 could be potentially significant in the areas of aesthetics, air quality, biologically resources, land use, geology. hydrology, and noise. The level of significance of these potential impacts is not known, but mitigation measures would likely be available to reduce at least some of these impacts to a less-than significant level. However, some impacts may be significant and unavoidable even with mitigation. Therefore, for purposes of this analysis, impacts of construction of wastewater infrastructure improvements pursuant to MM 6-9 would be significant and unavoidable, similar to the proposed WRSP and Remainder Area.

Remainder Area

Water Supply

Water demand for Alternative 5 would be the same as the proposed Remainder Area, and could not be met by existing supplies. No water would be available from the City of Roseville for Alternative 5, so the impact would be more severe than under the proposed Remainder Area.

Recycled Water

Recycled water could be used to offset potable demands for Alternative 5, as described for the SOI Amendment. The DCWWTP would need to be analyzed to determine if it can produce enough recycled water to meet demand. However, infrastructure would need to be constructed outside Alternative 5 to convey water from the DCWWTP to the site. Installation of off-site infrastructure could result in environmental effects that would be more severe than the SOI Amendment (Impact 4.11-5).

Wastewater

Because Alternative 5 site is not currently served with public sewer, this alternative, similar to the SOI Amendment area, would require the installation of wastewater collection and conveyance infrastructure (Impact 4.11-6). For these reasons, the impacts due to installation of wastewater collections and conveyance infrastructure under Alternative 5 would be more severe than the WRSP.

As discussed above, the DCWWTP would need to be expanded to serve the eastern portion of the Alternative 5 site. Therefore, MM 6-9, below, would be required.

Solid Waste

Alternative 5 would generate approximately the same amount of solid waste as the proposed SOI Amendment. As indicated in Impacts 4.11-9 through 4.11-11, this waste could shorten the lifespan of the landfill and the MRF. Therefore, the impact would be identical to the impact of the proposed Remainder Area.

Electricity and Natural Gas

The amount of energy needed under Alternative 5 would be identical to the proposed Remainder Area, so the impacts would be similar.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

New Mitigation Measures Required of Alternative 5

MM 6-9: Expand the DCWWTP to be able to accept the increase in flow not considered in the WWMP EIR from Alternative 5.Hydrology, Water Quality, and Groundwater.

WRSP/Remainder Area

Stormwater Runoff (Peak Flows and Volume)

The Alternative 5 site is undeveloped with scattered rural residences and consists of open spaces, pasture, and agricultural land. Existing drainage courses consist of defined channels interrupted by agricultural grading and poorly defined swales that drain from east to west. Culverts under roadways convey runoff. Alternative 5 would not have any impact on the Pleasant Grove Creek watershed. However, increases in peak flows and volume of stormwater water in the Dry Creek, Curry Creek, and NEMDC watersheds could be greater than the levels estimated for the proposed SOI Amendment (Impacts 4.12-1 and 4.12-2). Because the same intensity of development as the proposed SOI Amendment would occur, and the number of developed acres would be similar, the amount of new impervious surfaces that would generate runoff would be similar. To address stormwater runoff concerns within the Dry Creek watershed, the Placer County Flood Control and Water Conservation District (PCFCWCD) and the Sacramento County Water Agency (SCWA) sponsored the Dry Creek Watershed Flood Control Plan (Dry Creek Plan) in April 1992. The report included information and recommendations for policies necessary to manage the storm waters within the Dry Creek watershed. According to the Dry Creek Plan, it is anticipated that future land use changes will increase the impervious surface area in the watershed by approximately 50 percent, resulting in increased flood flows.[526] The Dry Creek Plan identifies potential locations where detention facilities could be provided within the watershed. Local (i.e., on-site) detention was not recommended for the portion of the watershed in which Alternative 5 is located.[527]

The increased potential for downstream flooding that could be exacerbated by Alternative 5 peak flows and volumes would be a potentially significant impact that could be more severe than the SOI Amendment, particularly since detention is not recommended in that portion of the watershed. Because the focus on regional stormwater volume mitigation is related to effects at the Cross Canal, the approved

[526] Placer County Flood Control and Water Conservation District and Sacramento County Water Agency, *Final Report Dry Creek Watershed Flood Control Plan*, April 1992, prepared by James M. Montgomery Consulting Engineers.
[527] Placer County Flood Control and Water Conservation District and Sacramento County Water Agency, *Final Report Dry Creek Watershed Flood Control Plan*, April 1992, prepared by James M. Montgomery Consulting Engineers, Figure 5-2.

Roseville retention basin on Pleasant Grove Creek could provide storage for the Off-site Alternative. However, an agreement would have to be established between Placer County and the City of Roseville. Further, the basin has not been constructed. Therefore, like the SOI Amendment, this would remain a significant and unavoidable impact. Mitigation in addition to MM 12-2 and MM 4.12-3 would also be required that addresses a mechanism for negotiating an agreement with the City of Roseville to provide capacity in the City-owned basin. Alternatively, another retention basin could be constructed elsewhere. For these reasons, the increases in stormwater peak flows and volumes would be considered significant and unavoidable.

Floodplain Fill

The boundaries of the 100-year floodplain along Dry Creek have been delineated. The 100-year Dry Creek floodplain extends from Walerga Road west across Watt Avenue and southwest to PFE Road. The floodplain has also been mapped in the NEMDC subshed at the west end of site at Pleasant Grove Road at the Sutter County line.

Under Alternative 5, some fill may need to be placed in the 100-year floodplain, but no structures would be constructed in 100-year floodplain, similar to the proposed SOI Amendment (see Impact 4.12-3). The County regulates fill of the floodplain to ensure that the 100-year floodplain is not adversely affected. Therefore, the impact of Alternative 5 on the floodplain would be less than significant, similar to the SOI Amendment.

Water Quality

Assuming a similar amount of site development during construction and a similar increase in new impervious surfaces as the proposed SOI Amendment, construction and urban water quality impacts would be the same under Alternative 5 (see Impacts 4.12-4 and 4.12-5). Placer County has developed a SWMP that would require BMPs in the development. Construction and operational water quality impacts would be reduced to less-than-significant levels through implementation of MM 12-5 and MM .12-6 and State and local requirements for Alternative 5.

Groundwater Resources

The Alternative 5 site currently has a number of private groundwater wells serving agricultural uses. Groundwater use for agricultural purposes is expected to decrease as the land is converted and domestic water demand is met through surface water, so in-lieu groundwater recharge is expected to increase.[528]

[528] Quad Knoff, 2nd Administrative Draft EIR, Volume II, July 2003

Groundwater could be used in dry years to supplement surface water supplies, which would be consistent with regional planning and assumed in the WFA. However, reduced groundwater pumping at Reason Farms (MM 4.11-2) would not be within the ability of Placer County to implement. Because the MOU Guiding Principles direct that groundwater use be mitigated to less-than-significant levels, it is uncertain what options would be available to the County to offset the use. The use of groundwater during dry years is, therefore, considered a significant and unavoidable impact.

Groundwater Recharge

Groundwater recharge impacts of Alternative 5 would be similar to the less-than-significant impact identified for the proposed SOI Amendment (see Impact 4.12-4), because the potential for recharge would be along creeks, primarily, which would remain in open space. However, the impact would be somewhat more severe under Alternative 5, because, unlike the proposed SOI Amendment, a substantial portion of Alternative 5 is irrigated farmland, and this land would be converted to urban uses.

New Mitigation Required Under Alternative 5

MM 6-10: Ensure no net increase in stormwater volume by contributing toward the construction and/or expansion of regional retention facilities. (WRSP and Remainder Area).

Mitigation That Would No Longer Be Required

None.

New Significant and Unavoidable Impacts under Alternative 5

- Increases in stormwater peak flows and volumes and groundwater use from construction of Alternative 5.
- Increased pumping of groundwater.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Aesthetics and Visual Resources

West Roseville Specific Plan

Visual Character

Development of Alternative 5 would substantially and permanently alter the existing visual character of the site by introducing an extensive roadway network, houses, offices, commercial and industrial uses,

and other urban facilities into a fairly undeveloped area, similar to the proposed WRSP. Certain components of Alternative 5 would be constructed off site. Off-site infrastructure would include roads, electrical infrastructure, water and sewer lines, and water tanks. Such infrastructure would likely be similar to infrastructure anticipated for the proposed WRSP, except that sewer lines would be longer.

Development under Alternative 5 would not be subject to the Roseville Community Design Guidelines, but would be subject to the WRSP Design Guidelines, which address factors such as the size, type, and treatment of buildings, setbacks, landscaping. The Placer County General Plan contains design guidelines that would apply to this alternative. MM 6-11, below, would further reduce visual impacts by requiring development of design guidelines, but would not reduce this impact to a less-than-significant level. Therefore, although this impact would be less severe than the Proposed WRSP, the impact would remain significant and unavoidable.

Light and Glare

Similar to the proposed WRSP, Alternative 5 would develop over 5,000 acres of open space grassland in urban uses, resulting in a substantial change in the amount of light generated on the site, and alter nighttime views of the site. Light would be generated by residences, businesses, industrial areas, streetlights, and vehicles, all of which would increase the ambient nighttime illumination level. In addition, parks and schools with sports facilities could use high-intensity lights for playing fields, which would create a large amount of nighttime light. With development of this alternative, views to the Placer Vineyard site that are currently uninterrupted by light pollution from the site would change to views of a developed, lit environment.

As discussed above, City of Roseville Design Guidelines would not apply to Alternative 5. However, the WRSP and Placer County Design Guidelines would apply. The Placer County Design Guidelines contain guidelines for reducing light spillover through visual screening and downward-directed light. In addition, MM 6-11 would require development of design guidelines for Alternative 5 to address lighting issues.

Alternative 5 would include schools and parks, which would be adjacent to residential areas and could potentially produce bright light from associated sports facilities that could illuminate adjacent residential areas. Lighting of parks (athletic fields) could cause light spillover into adjacent residential neighborhoods during these hours. Additionally, because construction of sports facilities associated with schools would be under the jurisdiction of the school districts, implementation of design guidelines and these mitigation measures is at the discretion of the Districts. Like the City, the County could not compel the school districts to implement these measures. Should the districts choose not to implement the above-

mentioned mitigation measures for facilities within their jurisdiction, nighttime lighting impacts may not be reduced.

The Placer Vineyards site, due to its current open grassland character, is not currently a source of daytime glare. Development of Alternative 5 could result in glare from commercial and office buildings. The amount of development proposed by this alternative would be similar to that of the proposed WRSP, and could substantially alter the amount of daytime glare on the site.

Impacts on light and glare for Alternative 5 would be similar to the proposed WRSP, because the amount of area to be developed with light and glare-producing uses would be similar. Nonetheless, the change in the level of light and glare on the project site under Alternative 5 would remain significant and unavoidable, because the area, which currently lacks light and glare sources, would still be visibly changed in the context of nighttime lighting and daytime glare.

Visual Compatibility

Similar to the proposed WRSP, the Placer Vineyards site is currently open grassland. Unlike the proposed WRSP, development of this alternative would not be an extension of an existing urban edge. Rather, it would represent much denser urbanization than adjacent land uses, which consists primarily of open space, some large roadways, and rural residential development. Development under Alternative 5 would not be subject to the Roseville Community Design Guidelines, but would be subject to the WRSP Design Guidelines, which address factors such as the size, type, and treatment of buildings, setbacks, landscaping. The Placer County General Plan contains design guidelines that would apply to this alternative. MM 6-11 would reduce visual incompatibility impacts by requiring development of design guidelines, thereby reducing this impact to a less-than-significant level, similar to the proposed WRSP.

Scenic Resources

Alternative 5 would result in large-scale development that could impair long-range views by placing buildings within these view corridors. However, because these views are not designated scenic vistas, development of Alternative 5 would not create a substantial adverse effect on a scenic resource.

New Mitigation Required under Alternative 5

MM 6-11: Design Guidelines shall be developed to ensure that development under Alternative 5 is visually compatible with existing and future land uses.

Mitigation That Would No Longer Be Required

None.

Significant and Unavoidable Impacts That Would No Longer Occur

None.

Remainder Area

Visual Character

As discussed above, development of Alternative 5 would substantially and permanently alter the existing visual character of the site by introducing an extensive roadway network, houses, offices, commercial and industrial uses, and other urban facilities into an fairly undeveloped area, similar to the proposed Remainder Area. The Placer County General Plan design guidelines, along with MM 6-11, would further reduce visual impacts by minimizing visual conflicts. Even so, the visual character of the site would be permanently and substantially altered.

Light and Glare

Similar to the proposed Remainder Area, Alternative 5 would develop over 5,000 acres of open space grassland in urban uses, resulting in a substantial change in the amount of light generated on the site, and alter nighttime views of the site. With development of this alternative, views to the Placer Vineyard site that are currently uninterrupted by light pollution from the site would change to views of a developed, lit environment. Alternative 5 would also include schools and parks, which would be adjacent to residential areas and could potentially produce bright light from associated sports facilities that could illuminate adjacent residential areas. Lighting of parks (athletic fields) could cause light spillover into adjacent residential neighborhoods during these hours. Additionally, because construction of sports facilities associated with schools would be under the jurisdiction of the school districts, implementation of design guidelines and these mitigation measures is at the discretion of the Districts. Like the City, the County could not compel the school districts to implement these measures. Should the districts choose not to implement the above-mentioned mitigation measures for facilities within their jurisdiction, nighttime lighting impacts may not be reduced.

The Placer Vineyards site, due to its current open grassland character, is not currently a source of daytime glare. Development of Alternative 5 could result in glare from commercial and office buildings. The amount of development proposed by this alternative would be similar to that of the proposed SOI Amendment, and could substantially alter the amount of daytime glare on the site.

Impacts on light and glare for Alternative 5 would be similar to the proposed Remainder Area, because the amount of area to be developed with light and glare-producing uses would be similar.

Visual Compatibility

Similar to the proposed Remainder Area, the Placer Vineyards site is currently open grassland. Unlike the proposed Remainder Area, development of this alternative would not be an extension of an existing urban edge. Rather, it would represent much denser urbanization than adjacent land uses, which consists primarily of open space, some large roadways, and rural residential development. Development under Alternative 5 would not be subject to the Roseville Community Design Guidelines, nor would such development be subject to the WRSP Design Guidelines, which address factors such as the size, type, and treatment of buildings, setbacks, landscaping. The Placer County General Plan contains design guidelines that would apply to this alternative. MM 6-11 would require development of design guidelines in future specific plans or developments within Alternative 5, thereby reducing visual incompatibility impacts to a less-than-significant level, similar to the proposed Remainder Area.

Scenic Resources

Alternative 5 would result in large-scale development that could impair long-range views by placing buildings within view corridors. However, because these views are not designated scenic vistas, development of Alternative 5 would not create a substantial adverse effect on a scenic resource.

New Mitigation Required under Alternative 5

MM 6-11: Design Guidelines shall be developed to ensure that development under Alternative 5 is visually compatible with existing and future land uses.

Mitigation That Would No Longer Be Required

None.

Conclusions

Alternative 5 would not be environmentally superior to the proposed WRSP and SOI Amendment, because it would result in additional impacts on biological and agricultural resources, and would not substantially reduce impacts identified for the proposed WRSP and SOI Amendment. Two significant and unavoidable impacts would be more severe under Alternative 5, including

- Conversion of agricultural land to developed uses (Impact 4.1-4)
- Increased stormwater peak flows and volumes (Impacts 4.12-1 and 4.12-2)

In addition a new significant and unavoidable impact would occur

- Impact 4.6-6: Loss of topsoil (WRSP Only)

For the most part, Alternative 5 would meet the project objectives. However, it would not provide for the orderly and logical extension of the City of Roseville (Objective 2), would not ensure land use compatibility with the 1,000-foot buffer surrounding the PGWWTP (Objective 5), does not allow for extension of the existing age-restricted community (Objective 6), does not include permanent open space on the western edge of the City (Objective 7a), does not provide housing diversity in the City (Objective 7b), and does not implement the project according to City standards. In addition, Objective 12 would not be met, as Alternative 5 may not be fiscally feasible. A number of the objectives would not apply to Alternative 5, because they are specific to development in the City of Roseville (Objectives 3, 4, 8, 9 and 10).

6.2.9 Environmentally Superior Alternative

According to Section 15126.6(d)(2) of the CEQA Guidelines, an EIR is required to identify an environmentally superior alternative from among the range of reasonable alternatives that are evaluated. The environmentally superior alternative would be the alternative that results in the fewest significant environmental impacts as compared to the proposed project. If the environmentally superior alternative is the no project alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives.

The No Project Alternative would reduce the greatest number of project impacts and would, therefore, be considered the environmentally superior alternative. Among the other alternatives, Alternative 2 (Open Space Alternative) would be considered the environmentally superior alternative as it reduces more significant project impacts as compared to the other project alternatives, although it fails to meet most of the project objectives. As indicated by Tables 6-1 through 6-6, which provides a comparison of the various impacts of the alternatives and the proposed project, the Open Space Alternative would preserve the most open space and would provide the least number of dwelling units. The population attributable to this alternative would also be the least, as would the number of employees and/or jobs that would be generated. Accordingly, this alternative would result in the fewest impacts with respect to: (1) wetlands and grasslands; (2) construction and operational air quality emissions; (3) public services (police, schools, and libraries); (4) public utilities (solid waste, water, wastewater, electricity, and natural gas); (5) transportation; (6) construction and operational noise; and (7) conversion of agricultural land to developed uses.

The provision of Section 15126.6(d)(2) of the CEQA Guidelines must be read together with Section 15126.6(d), which requires that an EIR compare the significant effects of the alternatives with those that would result from the project. Often, alternatives will reduce some impacts and increase

others. Therefore, it is also appropriate for an EIR to explain the environmental advantages and disadvantages of each alternative in comparison with the project. This comparison is made in the concluding paragraph of each alternative.

Chapter 7 PLANNING CONSIDERATIONS

7.1 INTRODUCTION

This chapter addresses consistency with applicable documents that are part of the planning context in which the proposed project would be developed, including

- LAFCO policies
- City of Roseville Specific Plans
- City of Roseville General Plan (1992, updated through 2003)
- City of Roseville Guiding Principles (2001)
- City/County Memorandum of Understanding (MOU) regarding the MOU Transition Area
- Placer County Applicable goals and policies
- City of Roseville/U.S. Fish and Wildlife Service Memorandum of Understanding

The West Roseville Specific Plan (WRSP) would result in an SOI amendment and annexation to the City of Roseville, an amendment to the City's General Plan, adoption of a Specific Plan, and a change in the existing zoning of the WRSP. Development of the WRSP Area could not proceed as proposed without annexation. Further, the WRSP Area and, eventually, the Remainder Area are annexed, the City's General Plan would apply to the SOI Amendment Area rather than the County's General Plan. The proposed project would alter existing land use plans by changing lands currently planned by the County for agricultural use to residential, open space, community commercial, light industrial, industrial, business professional, and public/quasi-public uses. Implementation of the WRSP would be consistent with the City's General Plan with approval of the proposed General Plan Amendment. Therefore, consistency with existing General Plan and zoning designations is not considered an impact; however, a discussion of consistency with General Plan policies is provided to demonstrate that no inconsistencies exist between the existing General Plan and the proposed project.

Because this document provides a project-level analysis of impacts resulting from construction and operation of the WRSP, the policy analysis focuses on the WRSP. Any future development in the Remainder Area would rely upon the programmatic analysis provided in this document, supplemented by additional analysis, which would include a detailed review of consistency with applicable plans, policies, and regulations

For the reader's information, County General Plan policies are provided in Appendix D and the City's General Plan polices are provided in Appendix C. The technical sections within Chapter 4 identify components of the project that could be considered inconsistent with the County General Plan or where impacts would be less severe if development occurred under the County rather than the City.

Section 15125(d) of the CEQA Guidelines states that the EIR shall discuss "any inconsistencies between the proposed project and applicable general plans and regional plans…" An EIR may provide information regarding land use, planning and socio-economic effects; however, CEQA does not recognize these issues as typical environmental impacts on the physical environment. Physical impacts on the environment that could result from implementation of the WRSP and SOI amendment are not addressed in this chapter, but in the appropriate technical environmental sections of Chapter 4 of this EIR (see Sections 4.2 through 4.13). All of the documents are available for review at the City of Roseville Permit Center, 311 Vernon Street, Roseville, California.

7.1.1 Policy Setting

LAFCO

The objectives of a Local Agency Formation Commission (LAFCO) are to encourage the orderly formation of local government agencies, preserve agricultural land, and discourage urban sprawl. LAFCOs review proposals for the formation of new local government agencies and regulate changes, such as boundary lines, of existing agencies. A LAFCO is the entity that evaluates proposals for the creation of cities or special districts, as well as proposals to annex additional land to local jurisdictions. If the WRSP is approved, the City of Roseville would provide most municipal services. In addition, any future development in the Remainder Area would require annexation to the City of Roseville where the City would provide most municipal services. These boundary changes must be reviewed and approved by LAFCO.

Placer County LAFCO would be responsible for approval of (1) the proposed annexation for the WRSP and (2) the amendment to the City's SOI to include the project site, except for a small portion of the site east of existing Fiddyment Road that is currently in the City's SOI.

This EIR will be used by the Placer County LAFCO during their review of the proposed SOI amendment and annexation of the WRSP Area to the City of Roseville. Placer County LAFCO has adopted a comprehensive list of guidelines and policies to implement its stated objectives; however, some policies are intended to provide guidance to the Commission and are not directly applicable to actions by local jurisdictions. Therefore, only the LAFCO policies that apply to annexation of the WRSP or the SOI

amendment are addressed. Appendix E provides a complete list of applicable LAFCO policies. As part of recent changes to State law, a Municipal Services Review will be prepared separate from the EIR to analyze the provision of services for the WRSP.

City of Roseville

Framework of Land Use Plans in Roseville Planning Area

The City of Roseville establishes land use designations and policies in its General Plan and various specific plans. Planning policies are implemented through infrastructure plans and programs, the zoning and subdivision ordinances, and the development review process. While the formal responsibility for land use decisions in territory located outside the City limits and within its SOI resides with Placer County, the City receives notices from the County and provides comments (as appropriate) on development proposals within the sphere. A small portion of the WRSP Area west of proposed Fiddyment Road and east of existing Fiddyment Road is currently located within the City's SOI, as shown on Figure 1-1 in Chapter 1 (Introduction).

General Plan

The City of Roseville last completed a comprehensive update of its General Plan in 1992. This General Plan update addressed goals, policies, and implementation measures, but did not modify land uses or land use allocations beyond those identified in the previous General Plan. A minor technical update incorporating many of the changes that occurred since 1992 was completed in January 2003. The 2003 update identified the following: (1) modifications to the land use allocation of the General Plan that occurred since 1992; (2) the current household totals for the City is 34,532 as of September 30, 2001;[529] and (3) vacant residential land in the City is fully entitled and is expected to be built out by 2005.[530]

As discussed in Chapter 2 (Project Description), revisions to the City's General Plan are being evaluated in this EIR. A summary of the revised General Plan goals and policies is included in the Project Description. The revisions to the City's General Plan were made, in part, to include the WRSP because the City is planning to annex this portion of the SOI Amendment Area. The City is also proposing to amend the General Plan to include a new land use designation, Village Center (VC). As discussed in Section 4.1 (Land Use and Agricultural Resources), the addition of this new land use designation provides for residential, commercial, park, and public/quasi-public uses to support the creation of a walkable mixed-use community. While the VC designation is proposed as part of the WRSP, the

[529] City of Roseville Quarterly Development Activity Report, Second Quarter 2002, p. 1
[530] Kathy Pease, City of Roseville, written communication, September 18, 2002

designation may also be applied to land uses that currently exist in the City (e.g., residential and commercial) in different configurations or to future areas.

Applicable General Plan policies are identified in Appendix C of this Draft EIR.

Guiding Principles

In June 2001 the Roseville City Council adopted a set of "Guiding Principles" that, together with the City's existing General Plan policies, are intended to be used to guide any new development proposed to the west of the City in order to ensure that the City's typical standards for new development were met or exceeded. The thirteen Guiding Principles are listed below. Appendix L includes a copy of the complete text of the Guiding Principles.

Fiscal Health

1. Any development proposal west of Roseville shall, on a stand-alone basis, have an overall neutral or positive fiscal impact on the City's General Fund services.

A Well-Planned Community, a Strong Community Identity, and Sense of Place

2. Any development proposal west of Roseville shall include logical growth/plan boundaries and an east to west growth pattern.
3. Any development proposal west of Roseville shall not conflict with the Pleasant Grove Wastewater Treatment Plant (PGWWTP) and future Power Generation Facility.
4. Any development proposal west of Roseville shall maintain the integrity of existing neighborhoods and create a sense of place in new neighborhoods.

Community Infrastructure That Is Complete and Up-to-Date, a Healthy, Safe and Secure Community, and the Highest Quality Community Services and Organizations

5. Any development proposal west of Roseville shall include a plan to ensure full funding and maintenance of improvements and services at no cost to existing residents (including increased utility rates). A proposal shall not burden/increase the cost, or diminish the supply and reliability of services.
6. Any development proposal west of Roseville shall aid in regional traffic solutions and in right of way preservation.
7. Any development proposal west of Roseville shall secure and provide a new source and supply of surface water and should include reduced water demand through the use of recycled water and other off-sets.
8. Any development proposal west of Roseville shall consider development potential within the entire MOU Transition Area in the design and sizing of infrastructure improvements.

9. Any development proposal west of Roseville shall aid in resolution of regional storm water retention.
10. Any development proposal west of Roseville shall incorporate mechanisms to ensure new schools are available to serve the residents and shall not impact existing schools.

Outstanding Recreational Opportunities

11. Any development proposal west of Roseville shall include a significant interconnected public open space component/conservation plan in coordination with the City of Roseville/USFWS Memorandum of Understanding.

An Active, Educated, and Involved Citizenry

12. Any development proposal west of Roseville shall include a public participation component to keep the public informed and solicit feedback throughout the specific plan process.

A High Quality of Life

13. Any development proposal west of Roseville shall provide a "public benefit" to the City and residents.

Specific Plans

A specific plan is a policy and regulatory tool for the systematic implementation of the General Plan. It contains a set of land use designations and implementation programs reflecting the unique characteristics of the particular area. A specific plan is required to be internally consistent and consistent with the General Plan. In Roseville, specific plans are incorporated into the General Plan by reference.

At the present time, eight areas of the City are governed by Specific Plans, including two areas that immediately border the WRSP. These plans and accompanying development agreements have been developed to address growth issues and the unique constraints and opportunities found within each area, and provide a context within which implementation of the land use plan and associated public facilities can be successfully accomplished.

Zoning Ordinance

The City's Zoning Ordinance is a tool to implement the broad policies and uses contained in the General Plan. Zoning focuses on the specific uses of land rather than the longer term, planned uses contained in the General Plan. Typically, a General Plan land use designation is intended to guide development over a 20 year horizon, while a zoning classification specifies particular uses, development intensities, and other standards for particular parcels.

State law has imposed consistency requirements to ensure that local zoning ordinances conform to the General Plan (although charter cities with a population of fewer than two million, such as the City of Roseville, are exempt). To ensure that the zoning ordinance is consistent with the General Plan, the Plan itself must be complete, adequate, and internally consistent. Typically, a General Plan and zoning ordinance are consistent when they allow the same general range of types, density, and intensity of development at the same location.

The City's Zoning Ordinance was last updated comprehensively through Ordinance No. 3014 on May 22, 1996. Periodic revisions have been completed and are planned to keep the zoning ordinance up to date.

City of Roseville/Placer County Memorandum of Understanding

In 1997, the City of Roseville and Placer County entered into a Memorandum of Understanding (MOU) to promote interagency communication and foster cooperative land use planning between the City and the County. Recognizing that future development was likely to occur in this area, the MOU establishes a transitional area (MOU Transition Area) that includes 5,527 acres adjacent to the City's western boundary in which any proposed development must be reviewed by both the City and the County and meet certain standards required to mitigate any development-related impacts. The 5,527 acres includes all but the 167.7 acres located within the WRSP Area and 180 acres of City-owned land, as illustrated by Figure 1-1. The MOU states that, regardless of which entity processes an application for development within this area, environmental review must be conducted, and "all identified Fiscal, Transportation and Circulation, Utilities and Services, Affordable Housing, and Groundwater impacts of proposed development will be mitigated to a level that is less than significant, unless both the County and the City agree that specific overriding considerations render such mitigation measures infeasible."[531] In addition, the MOU states that "to the greatest extent practically and legally feasible, the City and the County will process development applications in the Transition Area such that development proceeds in a orderly east-to-west progression."[532]

Placer County

Placer County updated the County General Plan in 1994 and completed a technical update in June 2003. The Placer County General Plan presently designates all of the area west of Fiddyment Road as Agricultural/80-acre minimum, and the associated zoning includes an 80-acre minimum Farm Zone.[533]

[531] Memorandum of Understanding Placer County/City of Roseville, p. 4
[532] Memorandum of Understanding Placer County/City of Roseville, p. 5
[533] Placer County, Placer County General Plan, 1994, Land Use Diagram

Placer County has also adopted a 1-mile buffer for the Western Regional Sanitary Landfill along Fiddyment Road and Athens Roads. This boundary is only applicable to residential uses; industrial, commercial, and recreation uses would be allowed within this buffer zone. The northernmost boundary of the SOI Amendment Area is located over 1 mile from the southern boundary of the landfill facility.

The proposed project site is currently within Placer County and subject to the Placer County General Plan. As stated in Chapter 2, the proposed project includes annexation of the WRSP Area to the City of Roseville and amendment of the City's SOI boundaries to include the entire project site. It is anticipated that in the future when, and if, the City receives an application to develop areas within the Remainder Area, this area would also be annexed to the City. If annexed, these areas would be subject to the City General Plan, not the County General Plan. However, for the reader's information, this EIR electively considers consistency of the proposed project with the County General Plan where County policies are more protective of a resource than City policies). A complete list of all the County's General Plan policies is included in Appendix D. If a potential conflict or more restrictive County policy is identified, it is discussed in the technical sections provided in Chapter 4 of this document.

City of Roseville/U.S. Fish and Wildlife Service Memorandum of Understanding

In 2000, the City of Roseville and the U.S. Fish and Wildlife Service (USFWS) entered into a Memorandum of Understanding (USFWS/MOU) to address specific issues that were raised during the permitting process for the City's PGWWTP. The USFWS/MOU sets forth some specific objectives that were established to address indirect growth issues and the potential loss of habitat associated with operation of the City's PGWWTP. In addition, the USFWS/MOU establishes guidelines to be followed for the City's preparation of a Habitat Conservation Plan (HCP), or equivalent document. A copy of the USFWS/MOU is included as Appendix G.

7.1.2 Policy Analysis

LAFCO Policies

As discussed in the Policy Setting, LAFCO must approve both the annexation of the WRSP and the SOI boundary change for the SOI amendment area. Therefore, LAFCO must find that the amendment is consistent with LAFCO policies provided in Appendix E. While neither this document nor the City of Roseville can make a determination of consistency for LAFCO, the following information is provided for the reader's information and LAFCO's consideration. Further, inconsistency with LAFCO policies would not be considered an environmental impact because such inconsistencies are not related to a physical

change to the environment. Therefore, this analysis does not make findings of significance, or provide mitigation measures.

West Roseville Specific Plan

The WRSP includes both an amendment to the City's SOI and annexation to the City. A small portion of the WRSP east of Fiddyment Road is already within the City's SOI and would not be affected by the Sphere of Influence request (refer to Figure 1-1 in Chapter 1). However, the rest of the WRSP, as well as a portion of Fiddyment Road would require annexation to the City before any development within the WRSP Area could occur.

LAFCOs objectives under the Cortese/Knox Hertzberg Act include preserving agricultural land, encouraging logical patterns of growth, and discouraging urban sprawl. This analysis addresses project consistency with LAFCO policies, including concerns expressed by LAFCO. The analysis addresses the policies in the order that they appear in Appendix E.

LAFCO's Goal 1 is to encourage the orderly formation of local government agencies. Policy 1a(3) addresses changes in territory as they affect service districts. Specific requirements of Policy 1a(3) include disclosure of the physical boundaries to be served, extent of improvements required, comparison of the existing and proposed service levels, any existing resource shortages or facility inadequacies, and means of financing. Section 4.10 (Public Services) and Section 4.11 (Public Utilities) describe the extent to which service boundaries and infrastructure required to serve the WRSP and Remainder Areas would change; compares existing and proposed service levels; and identifies any potential resource shortages or facility inadequacies. As stated in Sections 4.10 Public Services, and 4.11 Public Utilities, service providers would be able to accommodate the WRSP and any future development proposals in the Remainder Area (assuming implementation of identified mitigation). Sections 4.10 and 4.11 also describe financing methods, such as connection fees and developer contributions towards fair-share costs of system improvements.

Policy 1(a)(4) requires that proposals for jurisdictional change include a plan for services. Technical studies prepared for the WRSP include service plans, and a Municipal Services Review (MSR) is being prepared for the proposed annexation of the project site.

Policy 1(b)(2) encourages that annexation to a city and special district be simultaneous. The WRSP would require the expansion of the City's service area boundaries to serve the WRSP Area. In addition, the service area for the PGWWTP would need to be expanded to include all of the WRSP Area, including a portion that is currently not within the service area. Applications for annexation to the City of Roseville

and the applicable service districts would be submitted simultaneously. This policy does not apply to the Remainder Area at this time because annexation is not proposed.

Policy 1(d)(2) addresses inclusion or exclusion of roads adjacent to one or more boundaries of a proposed annexation. The only existing roadway that borders the WRSP Area is Fiddyment Road, which is located along the eastern boundary of the WRSP. Fiddyment Road is currently under Placer County's jurisdiction, but is proposed to be annexed to the City as part of the WRSP. Other roads that would be constructed as part of the WRSP, including the extension of Blue Oaks Boulevard, would also be entirely within the City's boundaries if the WRSP Area is annexed.

Policy 1(d)(3) states that the environmental document for a project that has one or more roads forming boundaries between the City and County shall include an analysis of placing the road within the jurisdiction of each. As stated above, Fiddyment Road is currently within the County's boundaries. As part of the WRSP, Fiddyment Road would be annexed to the City. An analysis of Fiddyment Road is included in this EIR. Blue Oaks Boulevard would also delineate the border between the County and City until, and unless, the Remainder Area is annexed. The environmental effects of constructing these roadways would be unaltered by the jurisdiction in which they are located because the roadway widths and construction techniques would be similar. The severity of the impacts might be slightly greater under the City's jurisdiction because more land would be graded for sidewalks, bike lanes, and landscaping that the City would require as opposed to the County. These roadways would include four travel lanes, 8-foot-wide sidewalks, curbs, and gutters. Once constructed, however, there would be no difference in environmental effects.

This policy also requires that the applicant address long-term maintenance costs associated with locating the roadway in each jurisdiction. A separate cost analysis in the finance plan is being prepared by the applicant to determine the long-term maintenance costs associated with roadways.

Policy 1(d)(4) requires that special districts be detached from an area when that area is annexed to a city that will assume the role of the district. The WRSP is part of Placer County Water Agency's Zone No. 5. Because the City of Roseville would become the water provider if the WRSP Area is annexed, detachment from Zone No. 5 will be requested of LAFCO as part of the project's entitlements. The detachment of special districts for the Remainder Area would be analyzed if and when the City receives a request for annexation for the Remainder Area.

LAFCO Agricultural and Open Space Policies 2(1), 2(2), and 2(3) are intended to protect open space and agricultural land from premature conversion. Policy 2(1) encourages promotion of orderly development and protection of agricultural lands and open space areas, including riparian areas. The WRSP would

result in the loss of grazing land, but this loss is not considered significant because the productivity of the site for other agricultural uses is limited, as discussed under Impact 4.1-4 in Section 4.1 (Land Use and Agricultural Resources). In addition, a small amount of land designated as Prime Farmland (±20 acres) would be impacted under the WRSP (see Impact 4.1-4). The EIR concluded that this loss, although small, would be significant and unavoidable. The WRSP includes 670.1 acres of permanent open space, generally located along natural drainages present on the site. All of the natural drainages, which include most of the riparian habitat in the WRSP Area, would be preserved within open space areas. No land use plan is proposed for the Remainder Area at this time, nor is this area being considered for annexation. This issue will be addressed if and when the City receives a request for annexation.

Policy 2(2) states that annexation will be linked to a proposal to develop and not be speculative in nature. Further, development plans are to include a timetable. The WRSP includes a Specific Plan, a financing plan, and a schedule for phasing of development. The Specific Plan provides land use designations for the entire WRSP and information regarding the intensity and type of development that is proposed.

Policy 2(3) states that annexation of farmlands shall not be permitted where significant areas of nonproductive farmland are already available. As stated above, most of the WRSP Area is grazing land of low productivity. However, there are approximately 40 acres of Prime Farmland present on the WRSP. This includes an existing pistachio orchard that would be partially developed and partially set aside for a community garden and open space. Approximately ±20 acres of Prime Farmland would be developed under the WRSP. The pistachio orchard, which is located on prime farmland, is on the eastern edge of the WRSP, adjacent to Fiddyment Road (refer to Figure 4.1-4 in Section 4.1, Land Use and Agricultural Resources). It is proposed for annexation with the WRSP or it would be a County "island" surrounded by the City.

Policy 3a(1) states that vacant or underdeveloped land within the City should be considered prior to annexing additional land. All residential land within the City is fully entitled and, as of 2005, the City anticipates that all of the residential land will be built out.[534] The WRSP proposes to develop 8,430 residential units on approximately 1,753 acres; therefore, there would not be sufficient land within the City to accommodate the residential component of the project. In addition, there are approximately 453 acres of unentitled, undeveloped non-residential land remaining in the City that could accommodate the non-residential portions of the WRSP.[535] However, the City determined that, due to the size of the project, it should include employment-generating uses and residences for a jobs/housing balance internal to the

[534] Kathy Pease, written communication, September 18, 2002
[535] Supplement to the City of Roseville Capital Improvement Program EIR, June 2002, p. 5-6

WRSP. Developing proposed non-residential land elsewhere in the City would not provide the desired mix of jobs and housing in the WRSP Area. Further, because only non-residential uses are allowed within 1,000 feet of the PGWWTP, areas within this buffer must be developed with non-residential uses.

LAFCO Policy 3a(2) includes factors that LAFCO will consider in determining logical growth patterns when considering annexation to a city, such as adjacency to existing and planned growth in the City; projected growth in relation to remaining undeveloped areas in the City; ability to provide services to the annexed area; and pending or anticipated development applications to the County for areas within the City's SOI. Policy 3a(3) specifically discourages urban development in unincorporated areas adjacent to City boundaries. As stated previously in this chapter, the WRSP is adjacent to developed areas within the City of Roseville. Based upon projections for residential development, the supply of residential land in the City is limited. Further, incorporating the non-residential area within the City's existing SOI would reduce the amount of development in unincorporated areas of the County, consistent with Policy 3a(3). The ability of the City to provide services to the WRSP Area is analyzed in Section 4.10 (Public Services) and Section 4.11 (Public Utilities) in this EIR. As discussed in those sections, the City is able to provide services and utilities to the WRSP, assuming implementation of identified mitigation measures.

The market absorption study required by LAFCO Policies 3b(1)(a) and 3(c)(1)(a) will be prepared prior to formal submittal to LAFCO and will analyze the proposed uses of the project in relation to similar uses within the City. This study would address projected growth demand and its relationship to the remaining lands to be developed within the City. In addition, the project provides light industrial, industrial, business professional, and community commercial land uses to provide a mix of employment opportunities in close proximity to residential development.

Policies 3(b)(1)(b) and 3(c)(1)(b) require that alternative project sites in the City and/or its existing sphere be analyzed. As discussed in Chapter 6 (Alternatives), most of the City's Sphere extends north of the City boundary to Athens Road. While this area contains several thousand acres, it is not necessarily appropriate for the mix of uses proposed in the WRSP. Most of the Sphere area is within the Sunset Industrial Area, which has been planned for industrial and agricultural uses by the County. In addition, over 1,000 acres of the land in the Sphere is within the one-mile, non-residential buffer for the Western Regional Sanitary Landfill. Existing and planned industrial uses are located along the SR-65 corridor, which makes up the eastern portion of the City's Sphere, and to the south, within the City's limits. A more detailed discussion of alternatives is provided in Chapter 6 of this EIR. LAFCO staff will have an opportunity to review the alternatives analysis during circulation of this Draft EIR.

Policies 3(b)(2) and 3(c)(2) discourage expansion of a City's sphere or the City's incorporated area if there is feasible land appropriate for the proposed uses already within the City and/or its sphere. As discussed above, most of the land within the City's sphere is located in the County's Sunset Industrial Area, Plan Area, which would not be suitable for residential development, because most of the area is within the one-mile non-residential buffer area for the land fill.

Policy 3(c)(4) requires that all annexation proposals be prezoned. Prezoning is proposed as part of the WRSP and consists of the land use designations on the land use plan.

LAFCO Policy 4(b)(1) states that the environmental impacts of annexation or jurisdictional reorganization must be considered and that LAFCO must be treated as a responsible agency. This EIR evaluates the impacts of the proposed WRSP, including annexation to the City of Roseville and reorganization of service districts. LAFCO has been identified as a responsible agency in Chapter 2.

SOI Amendment

Under the SOI amendment, the City would request that LAFCO amend the City's Sphere boundaries to include the SOI Amendment Area. (As stated above, a portion of the WRSP is already in the City's Sphere). For analysis purposes in this EIR, some land use assumptions were made regarding the Remainder Area; however, at this time, the only LAFCO action that is requested is to amend the City's SOI boundaries to include the SOI Amendment Area. Only policies addressing a change to the City's Sphere are addressed below.

To avoid redundancy, the policy discussions under the WRSP also pertain to the Remainder Area for Policies 1(a)3, 1(a)4, 1(b)2, 1(d)4, 2(1), 2(2), and 2(3).

The only roadway that would border the County within the Remainder Area is Baseline Road. Baseline Road is currently under the County's jurisdiction but if and when the Remainder Area is annexed to the City, it is anticipated Baseline Road would also be annexed (Policy 1(d)2).

If the road were left under the jurisdiction of the County it would be maintained consistent with County standards. If and when the Remainder Area is annexed to the City, this issue will be further analyzed at that time, consistent with Policy 1(d)(3).

Policy 3a(1) states that vacant or underdeveloped land within the City should be considered prior to annexing additional land. As discussed above, all residential land within the City is fully entitled and, as

of 2005, the City anticipates that all of this land will be built out.[536] The WRSP proposes 8,430 residential units, and the Remainder Area assumes approximately 7,403 units for a total of approximately 15,833 dwelling units. The City's supply of undeveloped, unentitled acreage is not sufficient to accommodate the residential component of the project.

There are approximately 453 acres of unentitled, undeveloped, non-residential land remaining in the City that could accommodate the approximately 320 acres of industrial, commercial, and business professional uses assumed to develop in the proposed project area.[537] However, as discussed above, a mix of employment-generating uses and residences is desirable, and this mix could be provided within the proposed project site.

LAFCO Policy 3a(2) includes factors that LAFCO will consider in determining logical growth patterns when considering annexation to a city, such as adjacency to existing and planned growth in the City; projected growth in relation to remaining undeveloped areas in the City; ability to provide services to the annexed area; and pending or anticipated development applications to the County for areas within the City's SOI. Policy 3a(3) specifically discourages urban level development in unincorporated areas adjacent to City boundaries. The project site is adjacent to the City of Roseville. The City will consider the extent to which land is available within its existing SOI and corporate limits, as well as the demand for additional residential and non-residential growth, when determining whether to approve the proposed project. Based upon projections for residential development, the supply of residential land in the City is limited. Incorporating the non-residential area within the City's existing SOI would reduce the amount of development in unincorporated areas of the County, consistent with Policy 3a(3). The ability of the City to provide services to the WRSP Area is analyzed in Sections 4.10 (Public Services) and 4.11 (Public Utilities) in this EIR. As discussed in those sections, the City is able to provide services and utilities to the WRSP, assuming implementation of identified mitigation measures.

As discussed above, a market absorption study required by LAFCO policy 3b(1)(a) will be prepared prior to formal submittal to LAFCO for the SOI amendment and will analyze the proposed uses of the project in relation to similar uses within the City. This study will examine the factors identified by the policy.

Policies 3(b)(1)(b) and 3(c)(1)(b) require that alternative project sites elsewhere in the City and/or its existing Sphere be analyzed. As discussed above and in Chapter 6, most of the City's Sphere extends north of the City boundary, to Athens Road. While this area contains several thousand acres, it is not

[536] Kathy Pease, written communication, September 18, 2002
[537] Supplement to the City of Roseville Capital Improvement Program EIR, June 2002, p. 5-6

necessarily appropriate for the mix of uses assumed for the proposed project. The area north of the City is within the Sunset Industrial Area and is designated for industrial uses.

Consistent with the above policies, LAFCO staff will have an opportunity to review the alternatives analysis during circulation of this Draft EIR.

Policies 3(b)(2) discourages expansion of a City's sphere if there is feasible land appropriate for the proposed uses already within its sphere. As discussed above, most of the land within the City's Sphere is located in the Sunset Industrial Area, which is not suitable for residential development as it is planned for industrial and agricultural uses by the County.

Consistent with Policy 4(b)(1), this EIR provides an environmental analysis of the proposed SOI expansion and identifies LAFCO as a responsible agency.

City of Roseville Plans and Policies

City of Roseville General Plan

Implementation of the City's General Plan policies, as well as City Improvement Standards, and compliance with the City's Zoning Ordinance and City of Roseville Community Design Guidelines has been assumed in the analysis of the project's impacts. In some cases (e.g., noise), the General Plan policies were used as the standard against which the significance of impacts were measured. The relevant land use goals and policies from the existing City of Roseville General Plan are identified in Appendix C. A list of all the revisions made to the General Plan policies pertaining to land use are included in Chapter 2 in this EIR. Overall the changes are minor and would not result in any additional environmental effects beyond those caused by construction and operations of the WRSP. It is within the City's purview to interpret its General Plan and to ultimately decide if the WRSP is consistent or inconsistent with any City goals or policies.

Under the proposed SOI amendment, the Remainder Area would be included in the City's sphere, but would not be annexed to the City. Therefore, it would remain under the County's jurisdiction. However, development of the SOI Amendment Area could not occur until the portion to be developed was annexed to the City and a Specific Plan was adopted. Further, if the City approved residential development within the Remainder Area, the General Plan's residential unit allocation would need to be amended.

As with the WRSP, it is assumed that any future development in the Remainder Area (if it is annexed) would be required to comply with the City's General Plan policies, ordinances, Community Design Guidelines, and Improvement Standards.

General Plan policies were reviewed to determine whether the proposed project could be inconsistent with the direction and general intent of the General Plan and individual policies. In accordance with CEQA Section 15125(d), which states, "The EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans. Such regional plans include, but are not limited to, the applicable air quality attainment or maintenance plan (or State Implementation Plan), areawide waster treatment and water quality control plans, regional transportation plans, regional housing allocation plans, habitat conservation plans, natural community conservation plans and regional land use plans for the protection of the coastal zone, Lake Tahoe Basin, San Francisco Bay, and Santa Monica Mountains."

There are a number of underlying principles that form the foundation for the goals and polices of the General Plan elements. Each of these principles is discussed below grouped by General Plan Element. The WRSP has been found to be consistent with the each of the underlying principles; therefore, it is assumed that it is consistent with each of the individual, applicable policies. For a comprehensive list of applicable General Plan policies, refer to Appendix C: Roseville General Plan Policies.

Land Use Element

- Promote and enhance Roseville's unique character and identity.

  The WRSP is planned primarily as a residential community with an overall mix of intensity of uses similar to that found in adjacent portions of the City. Emphasis has been placed on creating a community that complements the existing community and is compatible with adjacent uses.

- Distinguish Roseville from adjacent communities through the quality of development and design, and the level of public services and facilities provided.

  Emphasis has been placed on creating a vibrant, comprehensively planned community. The WRSP is planned primarily as a residential community, which incorporates a unique mixed-use village center, as well as recreation, open space, and employment and educational opportunities. Development within the WRSP Area is required to comply with the WRSP Design Guidelines, and all applicable City requirements. It is assumed that development within the Remainder Area will require the preparation of a Specific Plan and associated Design Guidelines and all future development within that area would be consistent with those plans and guidelines to ensure a high-quality development and design and the provision of adequate public services and facilities.

- Protect and enhance Old Town/Downtown and the City's established neighborhoods.

  Emphasis has been placed on creating a vibrant, comprehensively planned community that complements the existing community. The Old Town/Downtown area is located east of the WRSP Area and will not be directly affected by the project. The land uses in the project are of a different scale than the uses in the Old Town/Downtown.

- Promote new development, which is an integrated and connected part of the City's land use pattern.

  The WRSP will create a master planned community grounded in solid planning principles: one that will be desirable and functional for future residents and businesses and will provide new opportunities and benefits accessible to all of Roseville. Further, emphasis has been placed on creating a comprehensively planned community that complements the existing community. Permitted uses, development standards, processing requirements, and other regulations are specified by the City of Roseville Zoning Ordinance with additional guidance provided by the WRSP Specific Plan and Design Guidelines.

- Provide a variety of housing types and opportunities, including those for all income groups.

  The WRSP proposes a mix of housing types including low-density residential (LDR), medium density residential (MDR), and high-density residential (HDR). The LDR neighborhoods will provide market-rate housing for moderate- and above moderate-income residents. The WRSP affordable housing program focuses on the MDR and HDR parcels, located throughout the project area and has been structured to be consistent with and implement the General Plan affordable housing goals. It is assumed that development in the Remainder Area would similarly include an affordable housing program to achieve the General Plan's affordable housing goal.

- Create a balanced land use pattern with an appropriate mix of uses to accommodate resident employment, service, and social needs within the community.

  The WRSP is designed as a residential community supplemented by a mix of commercial and employment uses that could support specific uses such as retail, commercial, restaurants, service, offices, theaters, churches, schools, and park uses. Some of these uses will be located in the Village Center, which is envisioned as the heart of the WRSP, a destination where residents will meet, shop, eat, recreate, obtain services, and socialize. Parks, schools and smaller commercial uses are located within the neighborhood nodes.

- Promote a land use pattern that provides a high level of open space and recreational amenities and is sensitive to the natural environment.

  The WRSP establishes contiguous permanent open space areas designed to protect significant natural resources and allow for potential connectivity with larger-scale regional conservation efforts. Resource management efforts focus on wetlands, riparian and oak woodlands, habitat, and historic resources within the project site. Over 20 percent of the WRSP Area is designated as permanent open space. In addition to resource protection, the open space will provide for passive recreational opportunities.

- Create a land use mix and pattern which accommodates and promotes alternative transportation modes for ease of access and improved air quality.

  The WRSP circulation system includes a hierarchy of roadways, a pedestrian and bikeway network, and public transit. The circulation system has been designed to link with existing City and regional systems. The pedestrian and bikeway network is an important component in ensuring connectivity and promoting nonvehicular travel in the project area. The highest intensity land uses have been located within close proximity to major transportation corridors and potential public transit stops. Park-and-ride lots are planned throughout the project area in commercial, office, industrial, and park locations.

- Proactively manage and plan for growth.

  Emphasis has been placed on creating a comprehensively planned community that generates a sense of place for residents and users, complements the exiting community, ensures realization of City policies, and defines Roseville's western edge.

Circulation Element

- Promote the safe, efficient, and reliable movement of people and goods.

  The circulation system includes a hierarchy of roadways, a pedestrian and bikeway network, and public transit. Emphasis is placed on ensuring connectivity between uses and on creating a safe and efficient circulation system that complies with City policies and allows for transportation options.

- Shift from the automobile to other modes of transportation.

  The WRSP encourages the use of detached sidewalks and includes modified residential development standards to promote their use. Bike lanes and sidewalks are provided on all roadways in the project area. The Village Center is designated as a Pedestrian District in accordance with the City's General Plan. A Pedestrian District is intended to encourage increased pedestrian activity and improve walkability through enhanced safety, security, and convenience. The resulting interconnected open space and park network provides for pedestrian and bicycle access throughout the project site with connections outside the project area.

- Provide an adequate level of transportation service for all persons traveling in and through Roseville.

  The roadway system includes arterial, collector, and local roadways. Emphasis is placed on ensuring connectivity between uses and on creating a safe and efficient circulation system that complies with City policies and allows for transportation options.

Air Quality Element

- Protect the health and welfare of the community by promoting development that is compatible with air quality standards.

  The proposed project includes a variety of mitigation measures designed to reduce air quality impacts associated with construction and operation of the proposed project in order to protect the health and welfare of the community.

Open Space and Conservation Element

- Preserve a comprehensive interconnecting system of open space, encompassing preservation and enhancement of natural habitat and significant resource areas, for the use, appreciation, and enjoyment of the community.

  The WRSP establishes contiguous open space areas that are driven by the protection of significant natural resources and allow for potential connectivity with larger-scale conservation efforts. The resources management plan focuses on wetlands, riparian and oak woodlands, and historic resources within the project area. Over 20 percent of the WRSP Area is designated as permanent open space. In addition to resource protection, the open space will provide for passive recreational opportunities.

Parks and Recreation Element

- Provide a variety of both passive and active recreational opportunities for all City residents.

  The WSRP provides recreational facilities, parkland, and open space to comply with the policies and requirements of the City's General Plan Parks and Recreation Element. Approximately thirty percent (30%) of the WRSP Area is planned for park and open space use. The parks and open space program provides for a range of active and passive recreational opportunities that exceed the City's General Plan requirement of 9 acres of parkland per 1,000 residents. The placement and sizing of parks is reflective of community need, General Plan policy, proximity to users, ability to promote joint use activities, and existence of natural resources.

Public Facilities Element

- Provide adequate services for residents and enterprises and ensure that new development contribute its fair share toward the provision of these services and facilities.

  The proposed project will provide the public services necessary to meet the needs of area residents, in accordance with the policies of the City's General Plan. Public services include fire protection, police protection, schools, parks and recreation, and library facilities. Each component of the utilities infrastructure system is also designed to accommodate buildout of the project site. Utilities infrastructure includes water, wastewater, recycled water, drainage and flood control, electric service, natural gas, communications, and solid waste disposal. Utilities infrastructure will be constructed, dedicated, and easements provided consistent with the WRSP, the project development agreements, and all applicable standards and requirements.

Safety Element

- Protect the life, property, and environment of community residents, enterprises, employees, and visitors.

  The proposed project will provide services necessary to meet the needs of the area residents, in accordance with the policies of the City's General Plan. The Roseville Fire Department will provide fire protection, emergency medical service, and hazardous materials management to the project site. The Roseville Police Department will provide police protection to the project site, and all development will comply with City of Roseville Police Department recommendations regarding safety and security. The project site is within the Pleasant Grove and Curry Creek watersheds. Drainage facilities will be designed and constructed in conformance with City of Roseville Improvement Standards, the Placer County Flood Control Agency's Stormwater Management Manual, and the open space preserve Operations and Maintenance Plan. The project applicants will participate with the City of Roseville in constructing a regional retention basin to mitigate stormwater volume runoff.

Noise Element

- Protect the health and welfare of the community by promoting community development, which is compatible with noise level criteria.

  With the implementation of all recommended mitigation measures, interior noise levels at sensitive uses would not exceed City noise levels.

Housing Element

- Work to accommodate the housing needs of the City's current and future residents by providing a range of purchase and rental housing affordable to all income groups.

  The WSRP creates a master planned community that will be desirable and functional for future residents and businesses. The Plan proposes a mix of housing types including low-density residential (LDR), medium-density residential (MDR), and high-density residential (HDR).

- Strive to guarantee housing affordability over time through the adoption of policies and implementation measures as detailed in this Housing Element.

  The LDR neighborhoods will provide market-rate housing for moderate- and above moderate-income residents. The WRSP affordable housing program focuses on the MDR and HDR parcels, located throughout the project site and has been structured to be consistent with and implement the General Plan affordable housing goal.

No inconsistencies with the General Plan have been identified for the WRSP Area.

As stated previously, development of the Remainder Area could not occur until it is annexed to the City and a Specific Plan is adopted. For the purposes of this EIR, certain land use assumptions were made to assist in evaluating potential impacts associated with expansion of the sphere of influence boundary. As

shown in Table 2-3 in Chapter 2, the land use assumptions for this area include residential of a density and type similar to the WRSP along with commercial and business professional uses. While any future development within the Remainder Area would be expected to be consistent with the City's General Plan, as amended, if necessary, until specific development proposals are submitted, consistency with the General Plan for the Remainder Area cannot be determined. It is expected that a detailed consistency analysis would be included in any future environmental review for projects proposed in the Remainder Area.

City of Roseville Guiding Principles

West Roseville Specific Plan

As discussed earlier, in June 2001 the Roseville City Council adopted a set of "Guiding Principles" that, together with the City's existing General Plan policies, are intended to be used to guide any new development proposed to the west of the City in order to ensure that the City's typical standards for new development were met or exceeded (see Appendix L). It is within the City's purview to interpret its General Plan and to ultimately decide if the proposed project is consistent or inconsistent with any City goals or policies. The following is a review of the project's consistency with the thirteen Guiding Principles.

Fiscal Health—Principle 1 states that development west of the City of Roseville is to have a neutral or positive effect on the City's General Fund services. A fiscal analysis will be provided to the City Council prior to consideration of the proposed project. That analysis will indicate whether the project, including the WRSP, would have a negative, positive, or neutral fiscal effect.

The addition of new residential areas will provide property tax revenues to the City along with increased sales tax revenues. In addition, all new development is required to pay its fair-share of any required roadway improvements or other infrastructure or public improvements that may be required due to the project. Section 4.3 (Transportation and Circulation), Section 4.10 (Public Services), and Section 4.11 (Public Utilities), discuss the requirement that the WRSP pay its fair share of any required infrastructure or service fee. The extent to which these provisions would affect the fiscal aspects of the WRSP will be evaluated in the fiscal analysis.

Well-Planned Community, a Strong Community Identity, and Sense of Place—Principle 2 states that development proposals west of Roseville must include logical growth boundaries and an east to west growth pattern. The pattern of development proposed under the WRSP includes an east to west growth pattern and proposes to extend Blue Oaks Boulevard and Pleasant Grove Boulevard through the WRSP

Area and extend and realign Fiddyment Road and Phillip Road through the WRSP Area as well. In addition, the WRSP proposes to maintain the City's goal of leaving riparian corridors as undeveloped open space and providing bike paths to connect the project site to existing developed areas in the City to the east.

Pursuant to Principle 3, the WRSP has been designed to accommodate the PGWWTP and the proposed Roseville Electric Park that may be constructed on the 70 acres of City-owned land to the north of the PGWWTP. The WRSP also includes a 1,000-foot buffer around the PGWWTP to ensure there is an adequate separation between residential uses and the PGWWTP. Sections 4.3 through 4.13 in this EIR also evaluate the consistency between these uses and the WRSP.

Principle 4 states that development shall maintain the integrity of existing neighborhoods and create a sense of place in new neighborhoods. The WRSP includes a land use plan that is similar in use, type, and density as the adjacent Del Webb Specific Plan and North Roseville Specific Plan. However, these Specific Plan areas would remain separated from the WRSP Area by Fiddyment Road, landscaping setbacks, and soundwalls.

In order to create a community identity and sense of place, the residential portion of the WRSP is organized as a series of small neighborhoods with a park or a school as a central feature. A Village Center is proposed in the southern portion of the WRSP, north and south of Pleasant Grove Boulevard between Market Street and Bob Doyle Drive, which is envisioned as the heart of the WRSP and will provide a pedestrian-oriented destination where residents will meet, shop, eat, recreate, obtain services, and socialize.

Community Infrastructure; Healthy, Safe and Secure Community; and Highest Quality Community Services and Organizations—The proposed project includes the expansion and/or realignment of existing roadways including Blue Oaks Boulevard, Pleasant Grove Boulevard, Phillip Road, and Fiddyment Road. The WRSP also includes new roadways throughout the WRSP Area, as well as water, wastewater, storm drainage, natural gas, and electrical infrastructure. Section 4.11 (Public Utilities) describes the proposed infrastructure plan for the WRSP and any proposed funding requirements. In addition, Section 4.11 discusses the proposed water supply and use of recycled water to decrease demand on domestic water supplies, as well as proposed stormwater detention plans. Lastly, Section 4.10 (Public Services) addresses the demand on public services, including the demand on school facilities. Section 4.3 (Transportation and Circulation) describes the proposed roadway plan and addresses any regional traffic concerns.

The fiscal impact analysis will indicate whether the WRSP will be able to construct and maintain roads and infrastructure and provide for public services at an acceptable level at no cost to existing residents, consistent with Principle 5.

Principle 6 requires the WRSP to aid in regional traffic solutions and right-of-way reservation. Section 4.5 (Transportation and Circulation) identifies impacts on roadways in and outside of the City associated with development of the WRSP. Rights-of-way necessary to provide adequate roadways have been identified in the WRSP. The WRSP also includes an open space area that could accommodate Placer Parkway, a proposed regional facility that would relieve traffic congestion on State Route 65 and Interstate 80.

The WRSP provides for new sources of surface water supply (e.g., San Juan Water District) and for the use of recycled water on landscaped areas, consistent with Principle 7, as discussed in Section 4.11 (Public Utilities).

As required by Principle 8, the WRSP infrastructure is sized to accommodate future development in the Remainder Area (refer to Section 4.11, Public Utilities).

The WRSP would contribute toward the regional retention facility being planned by the City, as required by Principle 9 (refer to Section 4.12, Hydrology, Water Quality, and Groundwater).

The WRSP identifies school sites to accommodate the elementary and high school students living within the project site, in accordance with Principle 10. As discussed in Section 4.10 (Public Services), the Roseville Joint Union High School District and the Roseville City School District have capacity to accept project-generated students given the school sites proposed within the WRSP. The project applicants have negotiated with the school districts regarding the location of school sites and the provision of adequate funding to support development of additional schools.

Outstanding Recreational Opportunities—Principle 11 states that development proposals west of Roseville shall include a significant interconnected public open space component and conservation plan, in coordination with the City of Roseville/USFWS Memorandum of Understanding. The WRSP Area includes a total of approximately 670.1 acres of open space and 270.4 acres of parks, including two Citywide parks. The park and open space dedication exceeds City standards (see Section 4.10, Public Services). The WRSP includes open space areas that would contain a continuous trail network that would connect to the City's existing open space/trail network to the east of the project site. A Section 404 permit application has been submitted to the U.S. Army Corps of Engineers and includes provisions for

protection of open space. For a discussion of the City/USFWS MOU, refer to the policy consistency discussion for the City/USFWS MOU, which is provided below.

Active, Educated, and Involved Citizenry—As discussed in Chapter 1 and Chapter 3 (Summary of Environmental Effects), the City has held a number of public workshops and meetings during the evaluation of the proposed project to educate the public and to solicit feedback. The public participation process will continue throughout preparation of the EIR. A public scoping meeting was held during the 30-day review of the NOP and additional public meetings are planned during the 45-day review period for the EIR, as recommended by Principle 12.

High Quality of Life—Quality of life in Roseville is defined through a combination of a strong business community, a fiscally sound general fund, good schools, quality housing inventory, and excellent public services (i.e., infrastructure, parks, polices, fire, etc.). Preserving the high quality of life means continuing to maintain and exceed the expectations of the residents and business community that live and work in Roseville and not burden or threaten the quality of life.

The proposed project includes large areas of undeveloped open space, two regional parks, as well as numerous smaller parks and a trail system to connect the project site to the rest of the City. The regional parks include a regional sports park and a more traditional park that includes lawns areas and trees for picnicking, a small outdoor festival area, and other passive activities, to meet the intent of Principle 13.

The City Council must make a finding that the project is consistent with the Guiding Principles prior to project approval.

Any future development within the Remainder Area would be expected to meet the City's Guiding Principles. However, more detailed consistency analysis will be included in any future environmental review for projects proposed within the Remainder Area. Until specific development proposals are submitted, consistency with the Guiding Principles cannot be determined for the Remainder Area.

City/County MOU Regarding the MOU Transition Area

West Roseville Specific Plan and Remainder Area

The City/County MOU was adopted by both the City and the County in 1997 to establish a set of procedures for both the City and the County to evaluate development proposed within the area west of the City of Roseville north of Baseline Road (the MOU Transition Area). The MOU provides a process by which both the City and the County must follow if a development application is submitted to either jurisdiction for development within this area of the County. The MOU also promotes interagency

communication and fosters cooperative land use planning between both the City and County. The landowners opted to submit their development application to the City of Roseville for this project; therefore, the City is required under the MOU to submit the project to the Roseville City Council for direction on whether to annex the site, decline the request, or request additional information. The City Council directed staff to move forward with the project in March 2002. The MOU also requires that if the City elects to move forward with annexation, the City refer the application to the County Board of Supervisors for their consideration of the annexation, which was done in May 2002. The Placer County Board of Supervisors voted unanimously to conditionally support consideration of the annexation.

The City also must file an application with LAFCO within 60 days of the County's action. The City contacted LAFCO and it was mutually agreed that the application for annexation should follow the City action of the project.

Section 3 of the MOU requires that an Initial Study be prepared to ensure that any impacts associated with the project would be mitigated to a less-than-significant level unless both jurisdictions agree that specific overriding considerations render such mitigation measures infeasible. Due to the size and complexity of the WRSP, the City of Roseville determined that an Environmental Impact Report (EIR) was the appropriate analysis to comply with CEQA requirements. Because the EIR would address every issue in the CEQA Guidelines Checklist, an Initial Study was not prepared. However, the NOP (provided in Appendix A of this document) did indicate which environmental impacts were expected to occur as a result of the WRSP.

Under the MOU, all fiscal, transportation and circulation, utilities and services, affordable housing and groundwater impacts must be mitigated to a less-than-significant level, or both the County and the City must agree that overriding considerations render mitigation infeasible.

If the City determines that any of the mitigation measures identified are infeasible, the rationale for rejecting the measure will be provided in the project's Findings of Facts. The benefits of the project, and the extent to which they outweigh significant impacts, will be addressed in the Statement of Overriding Considerations. The County must also concur with that Statement.

The MOU also requires adherence to specific development standards to ensure that all physical development, infrastructure development, and public services "be constructed, installed, financed or provided at an urban standard of development service." [538] The project, as described in this EIR, has been

[538] Memorandum of Understanding Placer County/City of Roseville, p. 5

designed to meet the City of Roseville's development standards, which meet the standard set forth in this MOU.

A requirement is also set forth in the MOU requiring that all development, to the greatest extent practically and legally feasible, proceeds in an orderly east-to-west progression. The project proposes that development is extended from the City/County boundary to the west, following an east-to-west direction.

The City Council must make a finding of consistency with the MOU before acting on the WRSP Area and SOI amendment. In addition, the County must also make a finding of consistency. While the City cannot compel the County to make such a finding, this EIR and any necessary supporting information will be provided to the County to aid in its deliberation.

City/U.S. Fish and Wildlife Service MOU

West Roseville Specific Plan and SOI Amendment Area

In May 2000, the City and the U.S. Fish and Wildlife Service (USFWS) entered into a MOU to prepare a Habitat Conservation Plan (HCP) or an equivalent document. For a full discussion of this MOU, as well as the project's consistency with its provisions, refer to Impact 4.7-12 of Section 4.7 (Biological Resources) of this EIR.

Chapter 8 REPORT PREPARATION

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Chapter 9 ACRONYMS

The following is a list of acronyms that are found in the document's text.

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ac	acre
ac-ft	acre-feet
ADWF	Average Daily Water Flow
ADT	Average Daily Traffic
AF/yr	Acre-Feet per year
APN	Assessor's Parcel Number
ARWRI	American River Water Resources Investigation
ASR	Aquifer Storage and Recovery
ASTM	American Society for Testing Materials
BACT	Best Available Control Technology
BAT	Best Available Technology
BMP	Best Management Practices
BOD	Biochemical Oxygen Demand
CalARP	California Accidental Release Program
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDC	California Department of Conservation
CDF	California Department of Forestry and Fire Protection
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CFD	Community Facilities District
CFR	Code of Federal Regulations
cfs	Cubit Feet per Second
CGS	California Geological Society
CHSC	California Health and Safety Code
CIP	Capital Improvement Program
CJUSD	Center Joint Unified School District
CLUE	Comprehensive Land Use Element
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
CSC	Species of Special Concern

CTC	California Transportation Commission
CUPA	Certification Unified Program Agency
CUSD	Center Unified School District
CVP	Central Valley Project
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
DARE	Drug Abuse Resistance Eduction
dB/dBA	Decibel
dbh	Diameter at breast height
DCJESD	Dry Creek Joint Elementary School District
DCWWTP	Dry Creek Wastewater Treatment Plant
DEIR	Draft Environmental Impact Report
DHS	Department of Health Services
DMMs	Demand Management Measures
DO	Dissolved Oxygen
DOT	Department of Transportation
DS	Development Standards
DTSC	Department of Toxic Substance Control
du	Dwelling Units
DWR	Department of Water Resources
DWSP	Del Webb Specific Plan
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EJESD	Elverta Joint Elementary School District
ELF	Extremely Low Frequency
EMF	Electric and Magnetic Fields
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FCAA	Federal Clean Air Act
FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Mapping Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
fps	Feet per second
GJUHSD	Grant Joint Union High School District
GMP	Groundwater Management Plan
gpd	Gallons per day
gpm	Gallons per minute
HABS	Historical American Building Surveys
HAP	Hazardous Air Pollutants
HCP	Habitat Conservation Plan
HVAC	Heating, Ventilating, and Air Conditioning
HWMP	Hazardous Waste Management Plan
IGSM	Integrated Groundwater and Surface Water Model
IIC	Impact Insulation Classification
IJS	Influent Junction Structure
I/O	Input/Output

IS	Initial Study
ISO	Insurance Services Office, Inc.
ITE	Institute of Transportation Engineers
JPA	Joint Powers Agreement
kV	Kilovolt
LAFCO	Local Agency Formation Commission
LDL	Larson Davis Laboratories
Ldn	Day-Night Average Sound Level
Leq	Equivalent Sound Level
Lmax	Maximum Noise Level
LOMR	Letter of Map Revision
LOS	Level of Service
LRTMP	Long Range Transit Master Plan
LUA	Land Use Allocation
MCLs	Maximum Contaminant Levels
MCMs	Minimum Control Measures
MFP	Middle Fork Project
mg	Million gallons
mG	Milligauss
mgd	Million gallons per day
MLD	Most Likely Descendant
MM	Mitigation Measure
MMP	Mitigation Monitoring Program
MOU	Memorandum of Understanding
MRF	Material Recovery Facility
MRP	Monitoring and Reportaing
MSA	Metropolitan Statistical Area
MSR	Municipal Services Review
MTP	Metropolitan Transportation Plan
MW	Mega-Watt
MWH	Montgomery Watson Harza
NCCP	Natural Communities Conservation Plan
NCPA	Northern California Power Agency
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIEHS	National Institute of Environmental Health Services
NOx	Nitrogen Oxides
NOI	Notice of Intent
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPU	Neighborhood Policing Unit
NRHP	National Register of Historic Places
NRSP	North Roseville Specific Plan
NRCS	Natural Resources Conservation Service
NTU	Turbidity
NWRSP	Northwest Roseville Specific Plan
OES	Office of Emergency Services
OSHA	Occupational Safety and Health Administration

PCAPCD	Placer County Air Pollution Control District
PCBs	Polychlorinated Biphenyls
PCDEH	Placer County Department of Health and Medical Services
PCFCWCD	Placer County Flood Control and Water Conservation District
PCTPA	Placer County Transportation Planning Agency
PCWA	Placer County Water Agency
PEA	Preliminary Endangerment Assessment
PEIR	Program Environmental Impact Report
PG&E	Pacific Gas and Electric
PGWWTP	Pleasant Grove Wastewater Treatment Plant
PM2.5	Particulate Matter less than 2.5 microns in diameter
PM10	Particulate Matter less than 10 microns in diameter
ppm	Parts Per Million
PRC	Public Resources Code
PSA	Purveyor Specific Agreements
psi	Pounds per square inch
PSR	Project Study Report
PWWF	Peak Daily Wet Weather Flow
RAPID	Research and Public Information Dissemination
RCONA	Roseville Coalition of Neighborhood Associations
RCRA	Resource Conservation and Recovery Act
RCSD	Roseville City School District
RFD	Roseville Fire Department
RHNAP	Regional Housing Needs Allocation Plan
RJUHSD	Roseville Joint Union High School District
ROG	Reactive Organic Gas
ROW	Right of Way
RPD	Roseville Police Department
RWD	Report of Water Discharge
RWQCB	Regional Water Quality Control Board
SA	Special Area
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SCE	Candidate Endangered Species
SCH	State Clearinghouse
SCT	Candidate Threatened Species
SCWA	Sacramento County Water Agency
SHPO	State Office of Historic Preservation
SIP	State Implementation Plan
SJWD	San Juan Water Dsitrict
SMARA	Surface Mining and Reclamation Act
SMUD	Sacramento Municipal Utility District
SOx	Sulfur Oxides
SOI	Sphere of Influence
SPMUD	South Placer Municipal Utility District
SOPs	Standard Operating Procedures
SR-65	State Route 65
SRRE	Source Reduction and Recycling Elements

SRTP	Short Range Transit Plan
SRWWTP	Sacramento Regional Wastewater Treatment Plant
SSWD	Sacramento Suburban Water District
STC	Sound Transmission Classification
SVAB	Sacramento Valley Air Basin
SWMM	Stormwater Management Manual
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	Toxic Air Contaminants
TDS	Total Dissolved Solids
TSD	Treatment, Storage and Disposal
TSM	Transportation Systems Management
UBC	Uniform Building Code
UP	Unified Program
USBR	United States Bureau of Reclamation
USCOE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
VBO	Villages at Blue Oaks
VC	Village Center
VdB	Decibel Velocity
VEE	Visible Emissions Evaluations
VELB	Valley Elderberry Longhorn Beetle
VOC	Volatile Organic Compound
WAPA	Western Area Power Administration
WDR	Waste Discharge Requirements
WFA	Water Forum Agreement
WPWMA	Western Placer Waste Management Authority
WRSL	Western Regional Sanitary Landfill
WRSP	West Roseville Specific Plan
WWMP	Wastewater Master Plan
WWTP	Wastewater Treatment Plant

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Title 4 REVENUE AND FINANCE

Chapter 4.39 FEES IN LIEU OF PARKLAND DEDICATION

4.39.040 Establishment and administration of in-lieu park fees.

A. The amount of land required for parkland dedication shall be consistent with the requirements in the City of Roseville general plan. Proposed residential subdivisions containing four or fewer parcels are exempted from the requirements of this ordinance, per the Subdivision Map Act (California Government Code Sections 66410 et seq.). Proposed residential subdivisions containing 50 or fewer parcels may be subject only to the payment of fees, and shall not necessarily be required to dedicate parkland, unless otherwise required by the director. With regard to proposed residential subdivisions of 50 parcels or more, the project applicant shall either:

1. Dedicate parkland in accordance with the City of Roseville general plan; or

2. Dedicate parkland and pay in-lieu fees when only a portion of the land proposed for a park site(s) is required by city, at the director’s sole discretion; or

3. Pay fees in accordance with this section and with Section 4.39.060, with no parkland dedication required.

B. For the purposes of this chapter, the number of new dwelling units shall be the total number of dwelling units indicated at the time of project submittal and submittal of the tentative map or specific plan residential land use designation to city by the project applicant. In the case of a condominium or apartment project, the number of new single-family dwelling units shall be the total number of condominium or apartment dwelling units.

C. With respect to project eligible applications under Section 4.30.039, the director may, in his or her sole discretion, require the payment of fees in lieu of part or all of the parkland dedication requirement. The amount of the Fee shall be based on the fair market value of the land that would otherwise be required for dedication and based on its prospective residential land use/zoning designation as requested by the project applicant. The fair market value shall be determined by a current fair market value appraisal valuation of the applicable land based on assumed land use and zoning designation in accordance with the project application. Should the city and/or project applicant desire to pursue payment of fees in lieu of the park land dedication requirement for the project, an appraisal shall be completed and submitted to city within 60 days following submittal of the project application, unless extended by director in his or her sole discretion. Such appraisal shall be provided by the applicant and the appraisal shall be prepared by an appropriately licensed and qualified appraiser approved by city. Such appraisal report shall be subject to the approval of director. Any dedicated parkland shall be free of environmental or other constraints or encumbrances, unless expressly waived by city. Title shall be conveyed to the city in fee simple and without restriction or limitation on use(s), unless approved otherwise by the city attorney. (Ord. 4577 § 1, 2007.)

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Roseville, California Municipal Code

Title 9 HEALTH AND SAFETY

Chapter 9.24 NOISE REGULATION

9.24.100 Sound limits for sensitive receptors.

It is unlawful for any person at any location to create any sound, or to allow the creation of any sound, on property owned, leased, occupied or otherwise controlled by such person, which causes the exterior sound level when measured at the property line of any affected sensitive receptor to exceed the ambient sound level by three dBA or exceed the sound level standards as set forth in Table 1, by three dBA, whichever is greater.

Table 1
SOUND LEVEL STANDARDS
(for non-transportation or fixed sound sources)

Sound Level Descriptor	Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
Hourly l_{eq}, dB	50	45
Maximum level, dB	70	65

A. Each of the sound level standards specified in Table 1 shall be reduced by five dB for simple tone noises, consisting of speech and music. However, in no case shall the sound level standard be lower than the ambient sound level plus three dB.

B. If the intruding sound source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient sound level can be measured, the sound level measured while the source is in operation shall be compared directly to the sound level standards of Table 1. (Ord. 3638 § 1, 2001.)

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Title 14 PUBLIC UTILITIES

Chapter 14.20 URBAN STORMWATER QUALITY MANAGEMENT AND DISCHARGE CONTROL

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Note

* Prior ordinance history: Ord. 4395.

Article I. General Provisions

14.20.010 Title.

This chapter shall be known as the “Urban Stormwater Quality Management and Discharge Control Ordinance” of the City of Roseville and may be so cited. (Ord. 4822 § 1, 2010.)

14.20.020 Findings.

The city council adopts this chapter based upon the following findings:

A. The Federal Clean Water Act regulates the discharge of pollutants into the waters of the United States and requires National Pollutant Discharge Elimination System (NPDES) permits requiring the reduction of pollutants to the maximum extent practicable for all discharges of stormwater and urban runoff discharges from the city’s stormwater conveyance system.

B. Stormwater and urban runoff may flow from individual properties to the city’s municipal storm drain system and then ultimately to the waters of the United States.

C. The city holds a permit under the Waste Discharge Requirements for Small Municipal Separate Storm Sewer Systems (Order No. 2013-0001-DWQ), which also serves as an NPDES permit (No. CAS000004) under the Federal Clean Water Act. Under the provisions of this NPDES permit, the city is required to possess the necessary legal authority and implement appropriate procedures to regulate the entry of pollutants and non-stormwater discharges into the city’s stormwater conveyance system. (Ord. 5787 § 1, 2017; Ord. 4822 § 1, 2010.)

14.20.030 Purpose and intent.

The purpose and intent of this chapter is to ensure the health, safety, and general welfare of citizens, and protect and enhance the water quality of watercourses and water bodies in a manner pursuant to and consistent with the Federal Clean Water Act and the city's NPDES permit by reducing pollutants in stormwater discharges to the maximum extent practicable and by effectively prohibiting non-stormwater discharges to the city's stormwater conveyance system. (Ord. 5787 § 2, 2017; Ord. 4822 § 1, 2010.)

14.20.040 Definitions.

For the purposes of this chapter, the following definitions shall apply:

"Best management practice" or "BMP" means activities, practices, and procedures to prevent or reduce the discharge of pollutants directly or indirectly to the city's municipal storm drain system and waters of the United States to the maximum extent practicable. Best management practices may include, but are not limited to: treatment facilities to remove pollutants from stormwater; operating and maintenance procedures; facility management and good housekeeping practices to control urban runoff, spillage, or leaks of non-stormwater; proper waste disposal; controlling drainage from materials storage; erosion and sediment control practices; the prohibition of specific activities, practices, and procedures; and such other provisions as the city determines appropriate for the control and reduction of pollutants. Please refer to the City of Roseville BMP guidance series as discussed further in Section 14.20.290 herein, for specific requirements.

"Board of appeals" means the board established pursuant to city ordinance, Chapter 2.26.

"CFR" means the Code of Federal Regulations.

"City" means the City of Roseville.

"City council" means the controlling leadership of the city's municipal body having legislative and administrative powers, such as passing ordinances and appropriating funds.

"City engineer" means the city engineer of the City of Roseville or the city engineer's authorized representative.

“Clean Water Act” means the Federal Water Pollution Control Act (33 U.S.C. Section 1251 et seq.), and any amendments thereto.

“Commercial” means property use types that include the distribution, sale and rental of goods, and the provision of services.

“Construction activity” means construction projects or activities resulting in land and soil disturbance and include, but are not limited to, clearing and grubbing, grading, excavating, demolition and utility work. These activities may also be subject to the State Water Resources Control Board’s NPDES construction permit requirements if land disturbance area exceeds one acre.

“Director” means the environmental utilities director of the City of Roseville or the director’s authorized representative.

“Enforcement officer” means any city employee or agent of the city with the authority to enforce any provision of this chapter and the authority to make any decision on behalf of the director or city engineer required or called for by this chapter.

“Garbage” means trash or other solid waste from domestic, commercial, and industrial sources, and includes wastes from the preparation, cooking, and dispensing of food, and from the handling, storage and sale of produce.

“Hazardous materials” means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the environment. “Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the environment.

“Illegal discharge” means any direct or indirect non-stormwater discharge to the city’s storm drain system, including sewage, process wastewater, and wash water from organized car washes, mobile cleaning, and pressure washing operations, except as specified by the exemptions listed in Section 14.20.130 of this chapter.

“Illicit connection” is defined as any pipe, drain, conveyance or other physical or non-physical connection, whether on the surface or subsurface, which allows an illegal discharge to enter the city’s storm drain system, regardless of whether said drain or connection had been previously allowed, permitted, or approved by a government agency, or had been documented in plans, maps, or equivalent records and approved by the city.

“Incidental runoff” means unintended amounts (volume) of non-stormwater runoff, such as minimal over spray from sprinklers that escapes the area of intended use. Water leaving an intended use area is not considered “incidental runoff” if runoff is part of the facility design, is due to excessive application, is due to intentional overflow or application, or is due to negligence.

“Industrial activity” means industrial business or activities, such as manufacturing, finishing, production, or processing of products, and materials or waste recycling, transportation, or storage, whether or not subject to NPDES industrial permit requirements as defined in 40 CFR Section 122.26(b)(14).

“Industrial stormwater NPDES permit” means an NPDES permit issued to an industry or group of industries that regulates the pollution levels associated with industrial stormwater discharges or specifies on-site pollution reduction and control strategies.

“Industrial wastes” means the liquid wastes from industrial manufacturing processes, trade, or business.

“Landowner” means the legal or beneficial owner of land or any other person holding proprietary right to land.

“Local health officer” means the Placer County health officer.

“National Pollutant Discharge Elimination System (NPDES) stormwater discharge permits” means general, group, and individual stormwater discharge permits that regulate facilities defined in federal NPDES regulations pursuant to the Clean Water Act. The California Regional Water Quality Control Board, Central Valley Region and the State Water Resources Control Board have adopted general stormwater discharge permits that regulate small municipal separate storm sewer systems, general construction activity, and general industrial activity.

“Natural outlet” means any non-man made outlet into a watercourse, pond, ditch, lake or other body of surface or groundwater.

“Non-stormwater discharge” means any discharge to the storm drain system that is not composed entirely of stormwater.

“Person” means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, municipality, state or federal agency, governmental entity, or any other legal entity, or their legal representatives, agents or assigns.

“Pollutant” means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste. Pollutants may also include paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes; yard wastes, refuse, rubbish, garbage, litter, or other discarded or abandoned objects, articles, and accumulations; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; water or waste containing fecal coliform and pathogens, including animal wastes; dissolved and particulate metals; construction and industrial wastes.

“Pollution” means the alteration of the quality of water by wastes or other materials in concentrations sufficient to unreasonably affect the designated beneficial uses of water (e.g., agricultural supply; municipal or industrial supply; recreation and aesthetic enjoyment; groundwater recharge; preservation and enhancement of fish, wildlife, and other aquatic resources). Pollution may include “contamination” as defined in California Water Code Section 13050(k).

“Porter-Cologne Act” means the California Porter-Cologne Water Quality Control Act and as amended (California Water Code Section 13000 et seq.).

“Premises” means any building, lot, parcel of land, or portion of land, whether improved or unimproved, including adjacent sidewalks and parking strips.

“Redevelopment” or “development” means any significant construction, alteration or improvement to any portion of real property that replaces or creates more than 2,500 square feet of impervious surface (including projects with no net increase in impervious footprint, and detached single-family homes that are not part of a larger plan of development), or as otherwise defined in the city’s most current NPDES permit. This includes, but is not limited to: creation or expansion of a building footprint; replacement of a structure; replacement of an impervious surface that is not part of routine maintenance activity; land-disturbing activities related to structural or impervious surfaces; and significant construction, alteration, or improvement to multiple adjacent parcels owned by the same person.

“Regional Board” means the California Regional Water Quality Control Board for the Central Valley Region.

“Regulated projects” means and includes all development or redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface. However, “regulated projects” do not include:

1. Detached single-family home projects that are not part of a larger plan of development;

2. Interior remodels;

3. Routine maintenance or repair such as: exterior wall surface replacement, pavement resurfacing within the existing footprint; or

4. Linear Underground/overhead Projects (LUPs) - Unless the LUP has a discrete location that has 5,000 square feet or more of newly constructed contiguous impervious surface. When the LUP has a discrete location that has 5,000 square foot or more of new contiguous impervious surface, only that specific discrete location is a “regulated project.”

“Rubbish” means any and all solid waste materials, including, but not limited to, paper, rags, bottles, cans, glass, boxes, packing material, yard waste and trimmings from lawns, trees and gardens, magazines, books, ashes, and construction debris.

“Sewage” means a combination of the municipal wastewater from residences, business buildings, institutions, portable restroom facilities, and industrial establishments, combined with any groundwater, surface water, and stormwater that may be present.

“Site design measures” means measures to reduce project site runoff from development or redevelopment projects, and can include one or more of the following:

1. Stream Setbacks and Buffers - a vegetated area including trees, shrubs, and herbaceous vegetation that exists or is established to protect a stream system, lake, reservoir, or wetland area;

2. Soil Quality Improvement and Maintenance - improvement and maintenance soil through soil amendments and creation of microbial community;

3. Tree Planting and Preservation - planting and preservation of healthy, established trees that include both evergreens and deciduous, as applicable;

4. Rooftop and Impervious Area Disconnection - rerouting of rooftop drainage pipes to drain rainwater to rain barrels, cisterns, or permeable areas instead of the storm sewer;

5. Porous Pavement - pavement that allows runoff to pass through it, thereby reducing the runoff from a site and surrounding areas and filtering pollutants;

6. Green Roofs - a vegetative layer grown on a roof (rooftop garden);

7. Vegetated Swales - a vegetated, open-channel management practice designed specifically to treat and attenuate stormwater runoff; and/or

8. Rain Barrels and Cisterns - system that collects and stores stormwater runoff from a roof or other impervious surface.

“Spill” means any leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of any liquid or solid waste into the environment, unless permitted or authorized by a regulatory agency.

“Storm drain system” means publicly-owned facilities operated by the city by which stormwater is collected and/or conveyed, including, but not limited to, any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures which are within the city and are not part of a publicly owned treatment works as defined at 40 CFR Section 122.2 or privately owned facilities outletting to waters of the United States or connected to the city storm drain system.

“Stormwater” means surface flow, urban runoff, and drainage consisting entirely of water from precipitation events such as rain, snow, sleet, or hail.

“Stormwater control maintenance agreement” means a legally recorded document that stipulates the long term maintenance obligations for stormwater control measures, and can include, but is not limited to, sales or lease agreement conditions, recorded property deed restriction, contract, or other legal mechanism.

“Stormwater control measures” means post-construction source control measures, structural control measures, and treatment control measures as defined in the city’s Stormwater Quality Design Manual.

“Urban runoff” means water runoff generated in or by urbanized areas, including precipitation and dry weather flows from a drainage area that reaches a receiving water body. Dry weather flows include incidental nuisance flows, such as excess irrigation water and washing activities.

“Watercourse” means a channel or depression in which a flow of water occurs, either continuously or intermittently.

“Water of the United States” means surface watercourses and water bodies as defined within 40 CFR Section 122.2, including waters such as lakes, rivers, streams, and wetlands.

“West Placer Storm Water Quality Design Manual” means the most recent version of the design manual for the Sacramento and South Placer regions, which sets forth the design criteria and operation and maintenance requirements for stormwater control measures for development and redevelopment projects and regulated projects. A copy of the Stormwater Quality Design Manual is available to view in the city’s development services department and can be found on the city’s website.

“Wetland” means an area that is inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (commonly known as hydrophytic vegetation). Wetlands may be regulated by either the United States Army Corps of Engineers or the California Regional Water Quality Control Board, or both.

Any term(s) defined in the Federal Clean Water Act, as amended, and/or defined in the regulations for the stormwater discharge permitting program issued by the Environmental Protection Agency, as amended, and which are not specifically defined in this section shall, when used in this chapter, have the same meaning as set forth in said act or regulation. (Ord. 5787 § 3, 2017; Ord. 5279 § 14, 2014; Ord. 4822 § 1, 2010.)

14.20.050 Applicability.

This chapter shall apply to all water or other material entering the storm drain system generated on any developed and undeveloped lands lying within the City of Roseville, unless an exemption or waiver is granted by the city or the Regional Board. (Ord. 5787 § 4, 2017; Ord. 4822 § 1, 2010.)

14.20.060 Responsibility for administration.

The director and the city engineer shall administer, implement, inspect, and enforce the provisions of this chapter. Any powers granted or duties of the director and the city engineer may be delegated by them to persons or entities acting in the beneficial interest of or in the employ of the city. (Ord. 5787 § 5, 2017; Ord. 4822 § 1, 2010.)

14.20.070 Severability.

The provisions of this chapter are hereby declared to be severable. If any provision, clause, word, sentence, or paragraph of this chapter or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this chapter. (Ord. 4822 § 1, 2010.)

14.20.080 Regulatory consistency.

This chapter shall be construed to assure consistency with the requirements of the Clean Water Act and Porter-Cologne Act and acts amendatory thereof or supplementary thereto, or any applicable implementing regulations, including the city’s current NPDES stormwater permit. (Ord. 5787 § 6, 2017; Ord. 4822 § 1, 2010.)

14.20.090 Conflicts.

In the event of any conflict between this chapter and any federal or state law, regulation, order, or permit, the requirement establishing the higher standard for public health or safety shall govern. To the extent permitted by law, nothing in this chapter shall preclude enforcement of any other applicable law, regulation, order, or permit. (Ord. 5787 § 7, 2017; Ord. 4822 § 1, 2010.)

14.20.100 Disclaimer of liability.

The standards set forth herein and promulgated pursuant to this chapter are minimum standards. Therefore this chapter does not intend nor imply that compliance by any person with this chapter will ensure that there will be no contamination, pollution, or unauthorized discharge of pollutants into waters of the United States caused by said person. This chapter shall not create liability on the part of the city or any agent or employee thereof for any damages that result from any discharger's reliance on this chapter or any administrative decision lawfully made thereunder. (Ord. 5787 § 8, 2017; Ord. 4822 § 1, 2010.)

14.20.110 Indemnification.

Any discharge that threatens, results in, or contributes to a violation of the city's NPDES permit(s) or any amendment, revision, or reissuance thereof, either separately considered or when combined with other discharges, is prohibited. Liability for any such discharge shall be the responsibility of the person(s) causing or responsible for the discharge, and such person(s) shall defend, indemnify, and hold harmless the city against any claim, expense, liability, or payment for injury or damage to any person or property and shall defend, indemnify, and hold harmless the city in any administrative or judicial enforcement or any legal action against the city resulting from such discharge. (Ord. 5787 § 9, 2017; Ord. 4822 § 1, 2010.)

Article II. Discharge Prohibitions

14.20.120 Prohibition of illegal discharges.

It is unlawful to discharge, permit to be discharged, or cause to be discharged any sewage, industrial waste, pollutant, garbage, or rubbish into any municipal storm drain system, watercourse, natural outlet, creek, or channel, except in accordance with the provisions of Chapter 14.20.130, or with the terms of a state or federally issued NPDES permit or city stormwater permit. Non-stormwater runoff discharge that is not incidental is prohibited, unless otherwise specified in Section 14.20.130. (Ord. 5787 § 10, 2017; Ord. 4822 § 1, 2010.)

14.20.130 Exemptions.

The commencement, conduct, or continuance of any illegal discharge to the storm drain system is prohibited except as follows:

A. The following non-storm water discharges are not prohibited provided any significant sources of pollutants present in the discharges are identified and appropriate control measures are developed and implemented to minimize the impacts of such discharges:

1. Water line flushing;

2. Individual residential car washing;

3. Diverted stream flows;

4. Rising groundwater;

5. Uncontaminated groundwater infiltration (as defined at 40 CFR Section 35.2005(20)) to separate storm sewers;

6. Uncontaminated pumped groundwater;

7. Discharges from potable water sources;

8. Foundation drains;

9. Air conditioning condensation;

10. Springs;

11. Water from crawl space pumps;

12. Footing drains;

13. Flows from riparian habitats and wetlands;

14. Dechlorinated swimming pool discharges;

15. Incidental runoff from landscaped areas, and

16. Discharges or flows from fire-fighting activities are excluded from effective prohibition against non-stormwater and need only be addressed where they are identified as significant sources of pollutants.

B. The prohibition in Section 14.20.120 shall not apply to any non-stormwater discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered by the State of California or the federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that approval has been granted by the city for any discharge to the city's storm drain system. However, this exemption provision does not obviate the need to obtain any other necessary permits for such discharges. Further, if the city or the Regional Board determines that any individual or class of non-stormwater discharge(s) listed above may be a significant source of pollutants to waters of the United States or to the physically interconnected MS4, or poses a threat to water quality standards (beneficial uses), the city may require the discharger to monitor and submit a report and to implement BMPs on the discharge.

C. Any discharge that the director, enforcement officer, the local health officer, or the Regional Board determines in writing is necessary for the protection of public health and safety.

D. With concurrence of the Regional Board, the city may exempt in writing other non-stormwater discharges that are not a significant source of pollutants to the storm drain system or waters of the United States. (Ord. 5787 § 11, 2017; Ord. 4822 § 1, 2010.)

14.20.140 Exceptions to otherwise applicable exemptions.

A. Notwithstanding the exemptions provided for in the previous section above, if the Regional Board or the director determines that a discharge that is otherwise exempt from the prohibition on illegal discharges causes or significantly contributes to a violation of any NPDES permit requirement or results in the conveyance of significant quantities of pollutants to surface waters, or is otherwise a danger to public health or safety, the director may give written notice to the owner or operator of the facility that the discharge exception shall not apply to the discharge at issue and require elimination of the discharges pursuant to Section 14.20.300.

B. Discharges in excess of an amount deemed to be incidental runoff shall be controlled. Parties responsible for controlling runoff in excess of incidental runoff shall:

1. Detect leaks (for example, from broken sprinkler heads) and correct the leaks within 72 hours of learning of the leak;

2. Properly design and aim sprinkler heads;

3. Not irrigate during precipitation events; and

4. Manage ponds containing recycled water such that no discharge occurs unless the discharge is a result of a 25 year, 24-hour storm event or greater. In the case of such discharge, the Regional Board is to be notified by an email sent no later than 24 hours after the discharge that includes identifying information, including the discharger's name and address. (Ord. 5787 § 12, 2017; Ord. 4822 § 1, 2010.)

14.20.150 Solid waste disposal prohibitions.

No person shall throw, deposit, leave, maintain, keep, or permit to be thrown, deposited, left, or maintained, in or upon any public or private property, driveway, parking area, street, alley, sidewalk, component of the storm drain system, or waters of the United States, any refuse, rubbish, garbage, litter or other discarded or abandoned objects, articles, and accumulations, so that the same may cause or contribute to pollution. Wastes properly deposited in streets in proper waste receptacles or pursuant to a city sponsored collection program are exempted from this prohibition. (Ord. 5787 § 13, 2017; Ord. 4822 § 1, 2010.)

14.20.160 Discharges in violation of industrial or construction activity NPDES stormwater discharge permit.

It is unlawful for any person subject to an industrial stormwater NPDES permit, construction stormwater NPDES permit, or city stormwater permit to violate any conditions of such permit. Proof of compliance with said permits may be required in a form acceptable to the director for all industrial stormwater NPDES permit holders, and the city engineer for all construction stormwater NPDES permit holders, prior to or as a condition of approval of a subdivision map, site plan, building permit, or development or redevelopment plan; upon inspection of the facility; during any enforcement proceeding or action; or for any other reasonable cause. (Ord. 5787 § 14, 2017; Ord. 4822 § 1, 2010.)

Article III. Stormwater Quality Management for Development

14.20.170 Stormwater management plans.

Site development construction plans must be accompanied by a stormwater management plan as required by the Stormwater Quality Design Manual. Prior to the issuance of a permit to construct and prior to installation and implementation of the specified BMPs, the construction plan and stormwater management plan shall have been reviewed and accepted by the city engineer. The stormwater management plan shall detail how stormwater generated from a site will be controlled, managed, and treated, including, but not limited to, incorporation of low impact development (LID) and hydromodification management concepts. The stormwater management plan shall evaluate the environmental characteristics of the project site and the potential impacts of all proposed development plans for the site on the water resources, and shall demonstrate the effectiveness of the type of stormwater control measures proposed for managing stormwater generated from the site. The stormwater management plan together with the site development construction plans shall indicate the size and location of all stormwater control measures, but need not include any information protected by Homeland Security laws or regulations. (Ord. 5787 § 15, 2017; Ord. 4822 § 1, 2010.)

14.20.180 Stormwater maintenance plans.

A stormwater BMP maintenance plan shall be developed for all post-construction stormwater control measures and shall include a schedule for when and how often maintenance of the stormwater control measures will occur, a list of any special equipment or skills required for proper maintenance, the estimated cost of maintenance, and a schedule for periodic inspections to ensure proper performance between maintenance events. (Ord. 5787 § 16, 2017; Ord. 4822 § 1, 2010.)

14.20.190 Stormwater control maintenance agreement required.

As a condition of issuance of the annual stormwater management permit, a stormwater control maintenance agreement shall be entered into by and between the developer of the development or redevelopment project and the current or future landowner(s) of all privately owned stormwater control measures. Certification of legal transfer and the existence of a stormwater control maintenance agreement shall be provided to the city upon the transfer of any land containing privately owned stormwater control measures from a development or redevelopment project. For new development and redevelopment, the stormwater control maintenance agreement shall run with the land and be recorded in the office of the Placer County recorder. The stormwater control maintenance agreement shall be irrevocable and shall obligate all current and future landowners to bear all costs for the annual maintenance, replacement, record keeping, and annual permitting of all stormwater control measures. (Ord. 5787 § 17, 2017; Ord. 4822 § 1, 2010.)

14.20.200 Stormwater management permit required.

No landowner shall own or operate one or more post-construction stormwater control measures without obtaining an annual stormwater management permit as provided in this chapter. Each stormwater management permit shall be valid for one year and must thereafter be annually renewed. (Ord. 5787 § 18, 2017; Ord. 5279 § 14, 2014; Ord. 4822 § 1, 2010.)

14.20.210 Prerequisites for permit issuance.

Applications for annual stormwater management permits shall be filed with the city's development services department. The initial stormwater management permit application must be accompanied by a stormwater management plan (for new construction only), a post-construction stormwater BMP maintenance plan, and a stormwater control maintenance agreement as detailed in Sections 14.20.170, 14.20.180 and 14.20.190. Prior to the issuance of a certificate of completion or a certificate to occupy, satisfactory stormwater management and post-construction stormwater BMP maintenance plans and a stormwater control maintenance agreement shall have been reviewed and accepted by the city engineer. (Ord. 5787 § 19, 2017; Ord. 4822 § 1, 2010.)

14.20.220 Fees.

If applicable, every application for an annual stormwater management permit or renewal shall be accompanied by a nonrefundable fee, as established by resolution adopted by the city council, as amended from time to time. (Ord. 5800 § 43, 2017; Ord. 5787 § 20, 2017; Ord. 4822 § 1, 2010.)

14.20.230 Stormwater quality design requirements and waivers.

A. All stormwater control measures shall be constructed and designed in accordance with the Stormwater Quality Design Manual.

B. A waiver from the requirements of the Stormwater Quality Design Manual may be requested if impracticability for a specific property can be established. A waiver for impracticability shall be granted only when all other stormwater control measures have been considered and rejected as infeasible. The city engineer may grant a waiver for the following situations of impracticability:

1. If there are extreme limitations of space for treatment on a redevelopment project;

2. If there are unfavorable or unstable soil conditions at a site to attempt infiltration;

3. If there is a risk of ground water contamination because a known unconfined aquifer lies beneath the land surface or an existing or potential underground source of drinking water is less than 10 feet from the soil surface.

Any waivers to stormwater quality design requirements for situations of impracticability not specified in this section must be granted by the Regional Board.

C. All requests to waive the stormwater quality design requirements, or any portions thereof, shall be submitted in writing to the city engineer for review. All requests shall be accompanied by a proposed stormwater management plan, including site plans and design documentation, which demonstrates the impracticability. The city engineer will review all requests and determine if a separate petition must be submitted to the Regional Board for consideration.

D. When a waiver is granted pursuant to this section, the landowner may be required to pay a stormwater control measure mitigation fee as established by resolution adopted by the city council, as amended from time to time.

E. Where any development or redevelopment project involves a new or rehabilitated flood management project associated with the city's municipal stormwater system, the landowner will need to coordinate with the city and any other local flood control entities to incorporate water quality and habitat enhancement features into the project. (Ord. 5800 § 44, 2017; Ord. 5787 § 21, 2017; Ord. 4822 § 1, 2010.)

14.20.240 Self certification reports and inspections.

A. All stormwater management permittees shall annually submit to the city engineer a self certification report demonstrating compliance with the approved stormwater maintenance plan. The self certification report shall verify that the operating condition of the stormwater control measures are in good working order and that the stormwater maintenance plan has been executed to ensure that stormwater control measures continue to perform adequately. The city engineer may conduct inspections of the stormwater control measures to confirm the information filed in the self certification report. It shall be unlawful to make any false statement or representation in a self certification report submitted to the city engineer.

B. If a stormwater management permittee fails to submit the required self certification report, the city engineer or enforcement officer may conduct an inspection of the stormwater control measures to verify compliance with the approved stormwater maintenance plan. If the city engineer or enforcement officer determines the stormwater management permittee is not in compliance with the stormwater maintenance plan, or the stormwater control measures are not in good working order, the city engineer or enforcement officer may issue a compliance order pursuant to Section 14.20.430 setting forth a schedule for compliance. The city engineer or enforcement officer shall perform a follow-up reinspection at the conclusion of the schedule for compliance. Each time a reinspection is required beyond the initial follow-up reinspection for the compliance order, a reinspection fee will be charged to the permittee, until such time that the permittee comes into compliance. The amount of the reinspection fee shall be as established by resolution adopted by the city council, as amended from time to time. Any unpaid costs owed by the permittee may be charged as a lien against the property.

C. The city engineer or enforcement officer shall perform a follow-up re-inspection at the conclusion of any prescribed schedule for compliance. Each time a re-inspection is required beyond the initial follow-up re-inspection for the compliance order, a re-inspection fee will be charged to the permittee, until such time that the permittee comes into compliance. The amount of the re-inspection fee shall be established by city council resolution. Any unpaid costs owed by the permittee may be charged to the landowner, and if not paid, the city shall have the authority to place a lien against the property. (Ord. 5800 § 45, 2017; Ord. 5787 § 22, 2017; Ord. 4822 § 1, 2010.)

14.20.250 Replacement of stormwater control measures.

Once a post-construction stormwater control measure reaches the end of its life cycle or has been damaged and can no longer operate as designed, that stormwater control measure shall be replaced by the landowner at the landowner's expense and inspected by the city engineer. Replacement stormwater control measures replaced in kind or with different technologies shall, at a minimum, meet the requirements of the then current Stormwater Quality Design Manual, LID Manual, and the requirements prescribed in this chapter. (Ord. 5787 § 23, 2017; Ord. 4822 § 1, 2010.)

14.20.260 Records of installation and maintenance.

Persons responsible for the operation and maintenance of stormwater control measures shall retain records of the initial installation of the stormwater control measures and records of all maintenance and repairs for the life of that control measure, but in no case less than five years. These records shall be made available to the city during inspection of the stormwater control measures and at other reasonable times upon request. (Ord. 5787 § 24, 2017; Ord. 4822 § 1, 2010.)

14.20.270 Unlawful to tamper with stormwater control measures.

It is unlawful to tamper with or knowingly render inoperable any stormwater control measure. (Ord. 4822 § 1, 2010.)

14.20.280 Time limit for filing application for permit.

All landowners with existing stormwater control measures as of the date of adoption of this chapter must apply for and obtain an annual stormwater management permit and enter into a stormwater control maintenance agreement pursuant to Section 14.20.220, within 12 months of the effective date of the ordinance codified in this chapter. Continued operation of stormwater control measures without an annual stormwater management permit more than 12 months after the effective date of the ordinance codified in this chapter shall constitute a violation of this chapter. (Ord. 4822 § 1, 2010.)

Article IV. Regulations and Requirements

14.20.290 Requirement to prevent, control, and reduce stormwater pollutants.

A. The city will establish guidance documents identifying best management practices for any activity, operation, or facility that may cause or contribute to pollution or contamination of stormwater, the storm drain system, or waters of the United States as a separate BMP guidance series. Where BMP requirements are promulgated by the city or any federal, state of California, or regional agency for any activity, operation, or facility that would otherwise cause the discharge of pollutants to the storm drain system or waters of the United States, every person undertaking such activity or operation, or owning or operating such facility, shall comply with such promulgated requirements. BMPs developed by these other entities will be included or incorporated by reference in the city's BMP guidance series. The BMP guidance series includes suggested structural and/or operational best management practices for various activities, operations and facilities and may be obtained from the city's environmental utilities department and/or the city's development services department, or viewed on the city's website.

B. Notwithstanding the presence or absence of requirements promulgated pursuant to subsection A, any person engaged in activities or operations, or owning or operating facilities or property that will or may result in pollutants entering stormwater, the municipal storm drain system, or waters of the United States shall implement best management practices to the extent they are technologically achievable and economically feasible to prevent and reduce such pollutants. The owner or operator of a commercial or industrial establishment shall provide reasonable protection from discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses. Facilities to prevent discharge of prohibited materials or other wastes shall be provided and maintained at the owner's or operator's expense.

C. Any landowner or person responsible for construction activities that is required by the State Water Resources Control Board to prepare a stormwater pollution prevention plan (SWPPP) must, at a minimum, adhere to the reviewed SWPPP. If the reviewed SWPPP, or any element thereof, is not fully implemented or is not functioning as needed to protect the waters of the United States, the responsible party will be required to immediately correct insufficiencies or will be subject to the enforcement procedures set forth in this chapter. The city has made available on its website a Stormwater Quality Best Management Practices (BMP) Guidance Manual for Construction Activities, which addresses proper best management practice installation and stormwater quality site management. This manual is consistent with the California Storm Water Quality Association (CASQA) Best Management Practices Handbook, and is part of the city's BMP guidance series available at the city's development services department.

D. As required by Section 14.20.230, any landowner or person responsible for new development or redevelopment projects or regulated projects shall implement city requirements that address the volume, rate and potential pollutant load of stormwater runoff from said projects per the latest version of the West Placer Storm Water Quality Design Manual. The city has established the West Placer Storm Water Quality Design Manual which addresses appropriate design considerations for post-construction BMPs, and is part of the city's BMP guidance series, available at the city's development services department and on the city's website. (Ord. 5787 § 25, 2017; Ord. 5279 § 14, 2014; Ord. 4822 § 1, 2010.)

14.20.300 Requirement to eliminate illegal discharges.

Notwithstanding the requirements of this chapter, the director or city engineer may require by written notice that a person responsible for an illegal discharge immediately or by a specified date discontinue the discharge and, if necessary, take measures to eliminate the source of the discharge to prevent the occurrence of future illegal discharges. (Ord. 5787 § 26, 2017; Ord. 4822 § 1, 2010.)

14.20.310 Prohibition of illicit connections.

The construction, use, maintenance, or continued existence of illicit connections to the storm drain system is prohibited. This prohibition expressly includes, without limitation, illicit connections made in the past regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection. (Ord. 5787 § 27, 2017; Ord. 4822 § 1, 2010.)

14.20.320 Requirement to eliminate or secure approval for illicit connections.

A. The director or city engineer may require by written notice that a person responsible for an illicit connection to the storm drain system comply with the requirements of this chapter to eliminate or secure approval for the connection by a specified date, regardless of whether or not the connection or discharges to it had been established or approved prior to the effective date of this chapter.

B. If, subsequent to eliminating a connection found to be in violation of this chapter, the responsible person can demonstrate that an illegal discharge will no longer occur, said person may request city approval to reconnect. If allowed by the city, the reconnection or reinstallation of the connection shall be at the responsible person's expense. (Ord. 5787 § 28, 2017; Ord. 4822 § 1, 2010.)

14.20.330 Watercourse protection.

Every person owning property through which a watercourse passes, or such person's lessee, shall keep and maintain that part of the watercourse within the property reasonably free of trash, debris, excessive or overgrown vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse. The owner or lessee shall not remove healthy bank vegetation beyond that actually necessary for utility or other construction and/or maintenance, flood control, or fire protection, nor remove said vegetation in such a manner as to increase the vulnerability of the watercourse to unnaturally high rates of erosion. These maintenance activities within the watercourse may require federal and/or state permits or approvals. (Ord. 5787 § 29, 2017; Ord. 4822 § 1, 2010.)

14.20.340 Prohibition of spills.

It is unlawful for any person to allow a spill to discharge into the city's municipal storm drain system or any watercourse. (Ord. 5787 § 30, 2017; Ord. 4822 § 1, 2010.)

14.20.350 Notification of spills.

A. Notwithstanding other requirements of law, any person responsible for a spill into stormwater, the mu-nicipal storm drain system, any watercourse, or waters of the United States shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of a hazardous material, said person shall immediately notify emergency response officials of the occurrence via emergency dispatch services or by calling "911."

B. Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials that are resulting or may result in illegal discharges or pollutants discharging into stormwater, the city's municipal storm drain system, any watercourse, or waters of the United States from said facility, said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of a hazardous material, said person shall immediately notify emergency response officials of the occurrence via emergency dispatch services or by calling "911." In the event of a release of non-hazardous materials, said person shall notify the city's environmental utilities department's stormwater management program, the city's stormwater discharge hotline (916-746-1000), or non-emergency dispatch services (916-774-5000). If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and clean-up records and best management practices or corrective actions taken to prevent its recurrence. Such records shall be retained for at least five years and be made available for inspection by the city on request. (Ord. 5787 § 31, 2017; Ord. 4822 § 1, 2010.)

14.20.360 Hazardous materials response.

Any person engaged in activities that may result in pollutants entering the municipal storm drain system shall undertake the measures set forth below to reduce the risk of non-stormwater discharge and/or pollutant discharge.

A. Any business requiring a hazardous materials release response and inventory plan under Chapter 6.95 (commencing with Section 25500) of Division 20 of the California Health and Safety Code or amendments thereto, shall include in that plan provisions for compliance with this chapter, including the provisions prohibiting non-stormwater discharges and illegal discharges or connections, and requiring the reduction of pollutants in all stormwater discharges.

B. Any business requiring a hazardous waste transfer, treatment, storage, and disposal facility contingency plan and emergency procedures pursuant to California Code of Regulations, Title 22, Chapter 15, Sections 66265.51 to 66265.56, shall include in that plan provisions for compliance with this chapter, including the provisions prohibiting non-stormwater discharges and illegal discharges, and requiring the reduction of pollutants in all stormwater discharges. (Ord. 5787 § 32, 2017; Ord. 4822 § 1, 2010.)

Article V. Inspection and Monitoring

14.20.370 Authority to inspect and enter property.

Whenever necessary to make an inspection to enforce any provision of this chapter, or whenever the director or city engineer has cause to believe that there exists, or potentially exists, in or upon any premises any condition which constitutes a violation of this chapter, the city may enter such premises at all reasonable times to inspect the same, and to inspect and copy records related to stormwater compliance. In the event the owner or occupant refuses entry after a request to enter and inspect has been made, the city is hereby empowered to seek assistance from any court of competent jurisdiction in obtaining such entry. (Ord. 5787 § 33, 2017; Ord. 4822 § 1, 2010.)

14.20.380 Authority to sample, establish sampling devices, and test.

During any inspection as provided herein, a city representative may take samples, perform any testing deemed necessary, and take photographs to aid in the pursuit of the inquiry or to record site activities. This authority may include the installation of sampling and metering devices on private property, or requiring the person owning or occupying the premises to supply samples. The enforcement officer may require monitoring, analysis, and reporting of discharges from any premises to the city's municipal storm drain system. Upon service of written notice by the enforcement officer, the burden, including the cost of these activities, analyses, and reports incurred in complying with the requirement, shall, to the extent permitted by law, be borne by the landowner or occupant of the facility or activity for which testing and monitoring has been requested or performed. (Ord. 5787 § 34, 2017; Ord. 4822 § 1, 2010.)

14.20.390 Requirement to monitor and analyze.

The director or city engineer may require by written notice that any person engaged in any activity and/or owning or operating any facility that may cause or contribute to stormwater pollution, illegal discharges, and/or non-stormwater discharges to the storm drain system or waters of the United States, to undertake at said person's expense such monitoring and analyses and furnish such reports to the city as deemed necessary to determine compliance with this chapter. (Ord. 5787 § 35, 2017; Ord. 4822 § 1, 2010.)

14.20.400 Requirement to remediate.

Whenever the director or city engineer finds that a discharge of pollutants is taking place or has occurred that will result in or has resulted in pollution of stormwater, the storm drain system, or waters of the United States, the director or city engineer may require by written notice to the owner of the property and/or the responsible person that the pollution be remediated and the affected property restored at the landowner or other responsible person's expense within a specified time pursuant to the provisions of this chapter. (Ord. 5787 § 36, 2017; Ord. 4822 § 1, 2010.)

Article VI. Enforcement

14.20.410 Violations.

It is unlawful for any person to violate any provision or fail to comply with any of the requirements of this chapter. Causing, permitting, aiding, abetting or concealing a violation of any provision of this chapter shall constitute a violation of this chapter. A violation of the provisions of this chapter shall occur irrespective of the negligence or intent of the violator to construct, maintain, operate or utilize an illicit connection or to cause, allow or facilitate any prohibited discharge. A violation of or failure to comply with any of the requirements of this chapter may be addressed pursuant to the city's enforcement response plan and/or may be charged as either an infraction or a misdemeanor in the discretion of the city attorney. (Ord. 5787 § 37, 2017; Ord. 4822 § 1, 2010.)

14.20.420 Acts potentially resulting in a violation of the Clean Water Act and/or Porter-Cologne Act.

Any person who violates any provision of this chapter or any provision of any requirement issued pursuant to this chapter may also be in violation of the Clean Water Act and/or the Porter-Cologne Act and may be subject to the sanctions of those acts, including civil and criminal penalties. Any enforcement action authorized under this chapter shall also include written notice to the violator of such potential liability. (Ord. 5787 § 38, 2017; Ord. 4822 § 1, 2010.)

14.20.430 Enforcement authority.

A. Cease and Desist Orders. Whenever the director, city engineer or enforcement officer determines that a person has violated a prohibition or failed to meet a requirement of this chapter, the city shall require:

1. The discharger to effectively abate and clean up the discharge, spill, or pollutant release within 72 hours of notification, with high risk spills being ordered to be cleaned up as soon as possible;

2. Uncontrolled sources of pollutants that could pose an environmental threat to be abated within 30 days of notification;

3. Activities discharging pollutants to cease until such discharges are adequately addressed; and/or

4. If clean-up activities cannot be completed within the time frames listed above, the discharger shall notify the Regional Board in writing within five business days of the determination that the time frame requires revision.

Nothing in this section shall be in conflict with the State Water Resources Control Board’s notification requirements associated with the construction stormwater NPDES permit or the industrial stormwater NPDES permit.

B. Other Enforcement Authority. An administrative citation pursuant to Chapter 2.50, or a written compliance order pursuant to Chapter 2.52 may be issued to any person responsible for the violation. Any compliance order issued may require without limitation any or all of the following:

1. The performance of monitoring, analyses, and reporting;

2. The elimination of illicit connections or illegal discharges;

3. The cessation of violating discharges, practices, or operations;

4. The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;

5. The implementation, maintenance, and documentation of source control, treatment, or operational best management practices;

6. Compliance with a post-construction stormwater BMP maintenance plan, stormwater pollution prevention plan (SWPPP) or other city-reviewed action plan; and

7. The maintenance, repair or replacement of stormwater control measures.

Any compliance order shall set forth a deadline within which the requirements of the compliance order must be completed. Said compliance order shall further advise that, should the violator fail to comply with the compliance order within the established deadline, a hearing on the compliance order shall be set. (Ord. 5787 § 39, 2017; Ord. 4822 § 1, 2010.)

14.20.440 Hearing.

If full compliance is not achieved within the time specified in the compliance order, a hearing on the compliance order shall be set pursuant to Chapter 2.52. All penalties and remedies authorized by Chapter 2.52 shall apply to violations of this chapter. (Ord. 4822 § 1, 2010.)

14.20.450 Appeal.

Notwithstanding the provisions of Section 14.20.440, any person receiving a cease and desist order, administrative citation, or compliance order under Section 14.20.430 may appeal that determination of the director, city engineer or enforcement officer to a hearing panel drawn from the membership of the city's board of appeals. Filing of the appeal does not suspend the need to comply with the terms of the citation or order if compliance is ordered to be accomplished in less than 15 days. The notice of appeal must be received by the city within 10 days from the date of the citation or order. Notice of hearing and hearing on the appeal will be conducted pursuant to the requirements of Chapter 2.52. (Ord. 5787 § 40, 2017; Ord. 4822 § 1, 2010.)

14.20.460 Abatement by the city.

A. If correction of the violation has not occurred within the time period specified by the hearing panel after a hearing conducted pursuant to Section 14.20.440 or 14.20.450, the continuing violation shall be deemed a public nuisance and the city or a contracting agent hired by the city is authorized to enter upon the private property on which the violation exists for the purpose of abating the violation. It is unlawful for any person, owner, agent or person in possession of any premises to refuse to allow the city or its contracting agents to enter upon the premises for the purpose of abating the violation.

B. The cost of any such abatement by city authorized herein shall be borne by the property owner, which cost shall include administrative costs as well as the actual cost of abatement. The cost of abatement, including administrative costs, may be enforced as a personal obligation against the property owner, and shall be invoiced to the property owner. If the invoice is not paid within 60 days, the city shall have the authority to place a lien upon and against the property. Any relief under this section shall not prevent the city from seeking other and further relief authorized under this chapter. (Ord. 5787 § 41, 2017; Ord. 4822 § 1, 2010.)

14.20.470 Administrative costs.

If the city prevails in any administrative, civil, or criminal proceeding initiated under this chapter, the city shall be entitled to seek reimbursement for all costs incurred in connection with said proceeding. Such reimbursable expenses may include, but are not limited to, costs of investigations and inspections, staffing costs, administrative overhead, out-of-pocket expenses, costs of administrative hearings, and costs of suit. If any such costs are awarded or granted to the city, said costs shall be recoverable pursuant to Section 14.20.460(B). (Ord. 5787 § 42, 2017; Ord. 4822 § 1, 2010.)

14.20.480 Stop work orders.

Whenever any work is being done contrary to the provisions of this chapter, the city engineer or enforcement officer may order the work stopped by notice in writing served on any persons engaged in the doing or causing such work to be done, and any such persons shall forthwith stop such work until authorized to proceed with the work by the city engineer or enforcement officer. (Ord. 5787 § 43, 2017; Ord. 4822 § 1, 2010.)

14.20.490 Urgency abatement on private property.

The director or city engineer is authorized to require immediate abatement of any violation of this chapter that constitutes an immediate threat to the health, safety or well-being of the public or the environment, or is a violation of any NPDES permit. If any such violation is not abated immediately as directed by the director or city engineer, the city or the city's designated agent is authorized to enter onto private property and to take any and all measures required to abate the violation. It is unlawful for any person, owner, agent or person in possession of any premises to refuse to allow the city or its contracting agents to enter upon the premises for the purpose of abating the violation. The cost of any such abatement by city authorized herein shall be borne by the property owner and/or responsible party, which cost shall include administrative costs as well as the actual cost of abatement. These costs may be enforced as a personal obligation against the property owner, and shall be invoiced to the landowner and/or responsible party. If the invoice is not paid within 60 days, the city shall have the authority to place a lien upon and against the property. Any relief under this section shall not prevent the city from seeking other and further relief authorized under this chapter. (Ord. 5787 § 44, 2017; Ord. 4822 § 1, 2010.)

14.20.500 Urgency abatement of municipal storm drain system.

The city is authorized to immediately abate or require the abatement of any illegal discharge or spill into the municipal storm drain system when, in the opinion of the enforcement officer, the discharge may constitute an immediate threat to the public health, safety or well-being, or to the environment, or may cause or contribute to a violation of any NPDES permit. The cost of any such abatement by the city, as authorized herein, shall be borne by the property owner and/or responsible party, which cost shall include administrative costs as well as the actual cost of abatement. These costs may be enforced as a personal obligation against the property owner, and shall be invoiced to the landowner and/or responsible party. If the invoice is not paid within 60 days, the city shall have the authority to place a lien upon and against the property. Any relief under this section shall not prevent the city from seeking other and further relief authorized under this chapter. (Ord. 5787 § 45, 2017; Ord. 4822 § 1, 2010.)

14.20.510 Compensatory actions.

In lieu of or in addition to enforcement proceedings, penalties, and remedies authorized by this chapter and Chapters 2.50 and 2.52, the director or city engineer may impose upon a violator one or more alternative compensatory actions including, but not limited to, storm drain stenciling, attendance at compliance workshops, creek cleanup activities, and staff training sessions. Any alternative compensatory actions shall be imposed on the violator in writing by the director or city engineer. Failure to comply with the terms of the compensatory actions may result in the enforcement proceedings, penalties, and remedies authorized by this chapter and Chapters 2.50 and 2.52. (Ord. 5787 § 46, 2017; Ord. 4822 § 1, 2010.)

14.20.520 Separate offense for each day and each violation.

Any person that violates any provision of this chapter shall be guilty of a separate offense for each violation and for every day during any portion of which any such person commits, continues, permits, or causes a violation(s) thereof, and shall be punished accordingly. (Ord. 5787 § 47, 2017; Ord. 4822 § 1, 2010.)

14.20.530 Public nuisance.

In addition to the enforcement processes and penalties hereinbefore provided, any condition caused or permitted to exist in violation of any of the provisions of this chapter is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored by the city at the violator's expense, and/or through a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance brought by the city. (Ord. 5787 § 48, 2017; Ord. 4822 § 1, 2010.)

14.20.540 Remedies not exclusive.

Remedies under this chapter are in addition to and do not supersede or limit any and all other available civil or criminal remedies. The remedies provided for herein shall be cumulative and not exclusive. (Ord. 5787 § 49, 2017; Ord. 4822 § 1, 2010.)

14.20.550 Judicial review.

Any decision of the hearing panel shall be final. Any person aggrieved by an order of the hearing panel may obtain review of the order in the superior court by filing with the court a petition for writ of mandate within 90 days pursuant to California Code of Civil Procedure Section 1094.6. (Ord. 4822 § 1, 2010.)

14.20.560 Appeal of City abatement costs.

Within 60 calendar days after the city's abatement of the violation, the director, or designee, will notify the owner of the property of the cost of abatement. The property owner and/or responsible party may file a written protest objecting to the amount of the abatement assessment within 10 calendar days after the city's issuance of the notice. The director, as applicable, shall conduct a hearing on the appeal within 30 calendar days from the date of receipt of the notice of the appeal. Appellant may appear at the hearing in person or may submit a written statement signed under penalty of perjury in lieu of a hearing. Following the hearing, the director shall make written findings of fact as to whether the abatement was proper. The director's decision shall be final. (Ord. 5787 § 50, 2017.)

Contact:

City Clerk: 916-774-5263

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Roseville, California Municipal Code

Title 19 ZONING

Article II. Regulations for the Principal and Special Purpose Zones

Chapter 19.10 RESIDENTIAL ZONES

Alert: This item has been affected by: Ordinance 6476, Ordinance 6538. Visit the CodeAlert page for more information on pending legislation.

19.10.010 Purpose.

19.10.020 Permitted use types.

19.10.030 Residential zone general development standards.

19.10.040 Supplemental design standards in the residential small lot (RS) district.

19.10.045 Design review required for compact residential development.

19.10.010 Purpose.

This chapter provides regulations applicable to primary uses in the residential zoning districts established by Section 19.06.010 (Zoning districts established). The residential zoning districts are as follows:

A. Single-Family Residential (R1) District. The R-1, single-family residential district is intended for detached, single-family homes and similar and related uses inclusive of half-plexes.

B. Small Lot Residential (RS) District. The R-S, small lot residential district is intended to allow either attached or detached single-family dwellings, and similar and related compatible uses.

C. Two-Family Residential (R2) District. The R-2, two-family residential district is intended to allow two dwellings per lot, either detached single-family dwellings or duplexes, and similar and related compatible uses.

D. Multi-Family Housing (R3) District. The R-3, multi-family housing district is intended for a range of high density and multiple-family housing. The types of land use intended for the R-3 zoning district include apartments, condominiums, townhomes, small lot cluster housing, and similar and related compatible uses.

E. Residential Mixed Use (RMU) District. The residential mixed-use district is intended to promote a variety of residential uses/dwelling types and the flexible citing of uses that are typically considered to be compatible with residential development. The RMU zoning district establishes a mix of uses, through the use of overlay zones, to ensure that different residential uses and densities will be successfully integrated into desirable, cohesive residential neighborhoods. The RMU zoning district shall always be applied in conjunction with either the DS (Development Standards) or SA (Special Area) overlay zones. (Also see Chapter 19.18.) (Ord. 6198 § 1, 2020; Ord. 5428 § 1, 2014.)

19.10.020 Permitted use types.

⚠ **Alert:** This item has been affected by: Ordinance 6538. See the CodeAlert page for details on recent amendments and newly-added provisions.

Primary uses are permitted in residential zones subject to the requirements of this title as designated below:

A. Principally permitted use, designated as “P”;

B. Conditionally permitted use, designated as “CUP”; and

C. Administratively permitted use, designated as “A.”

Primary use types not listed or designated by a dash (-) are not permitted in that zone district.

	R1	RS	R2	R3	RMU
AGRICULTURE AND OPEN SPACE USE TYPE					
Animal Keeping	P	P	P	P	P
Resource Protection and Restoration	P	P	P	P	P

	R1	RS	R2	R3	RMU
Resource Related Recreation	P	P	P	P	P
CIVIC USE TYPES					
Community Assembly	CUP	CUP	CUP	P	P
Community Servicess	CUP	CUP	CUP	CUP	P
Essential Services	P	P	P	P	P
Schools, Public/Private Elementary and Secondary	CUP	CUP	CUP	CUP	P
Power Generating Facilities (3)					
Emergency	P	P	P	P	P
Passive Power	P	P	P	P	P
RESIDENTIAL USE TYPES					
Accessory Dwelling Units (1)	P	P	P	P	P
Community Care Facilities, Small	P	P	P	P	P
Community Care Facilities, Large	CUP	CUP	CUP	P	P
Dwelling (5)					
Multi-Family	-	-	-	P	P
Single-Family	P	P	P	P	P
Two-Family	-	-	P	P	P
Family Day Care Homes, Small	P	P	P	P	P
Family Day Care Homes, Large (2)	A	A	A	A	P
Mobile Home Park	CUP	CUP	CUP	CUP	P
Rooming and Boarding House	-	-	-	P	P
Short-Term Rental (6)	P	P	P	P	P

	R1	RS	R2	R3	RMU
COMMERCIAL USE TYPES					
Commercial Recreation, Residential Recreation Facilities	CUP	CUP	CUP	CUP	P
Community Care Facility	-	-	-	P	P
Day Care Center	CUP	CUP	CUP	CUP	P
Long-Term Care Facility	-	-	-	CUP	P
Neighborhood Commercial				CUP	P
TRANSPORTATION AND COMMUNICATION USE TYPES					
Telecommunication Facilities (4)	AP/CUP	AP/CUP	AP/CUP	AP/CUP	AP/CUP

Notes:

(1) Accessory dwelling/junior accessary dwelling units are only permitted within areas zoned to allow single-family, two-family or multi-family residential use and must be located on a lot that contains an existing or proposed single-family, two-family or multi-family dwelling unit as defined in Sections 19.08.080(F)(1) and (F)(2) (Residential Use Types). See Chapter 19.60 for additional accessory dwelling/junior accessory dwelling unit regulations.

(2) See Chapter 19.46 for large family day care home regulations.

(3) See Chapter 19.55 for power generating facilities requirements.

(4) See Chapter 19.34 for antennas and communications facilities requirements.

(5) Transitional housing and supportive housing are considered residential use types.

(6) Short-Term Rentals are only permitted in a single-family dwelling unit. See Chapter 4.25 for additional Short- Term Rental requirements.

(Ord. 6198 § 1, 2020; Ord. 5974 § 7, 2018; Ord. 5428 § 1, 2014.)

19.10.030 Residential zone general development standards.

⚠ **Alert:** This item has been affected by: Ordinance 6476, Ordinance 6538. See the CodeAlert page for details on recent amendments and newly-added provisions.

A. Residential Development Standards. Permitted uses and associated structures shall comply with the following development standards, in addition to any other applicable requirements of this title:

RESIDENTIAL ZONE GENERAL DEVELOPMENT STANDARDS

	Requirement by Zoning District					
	R1	**RS** with attached sidewalk(10)	**RS** with separated sidewalk(8), (10)	**R2**	**R3(2)**	**RMU**
Area, interior lot	6,000 sq ft	4,500 sq ft	4,275 sq ft	6,000 sq ft	6,000 sq ft	None (7)
Area, corner lot	7,500 sq ft	5,500 sq ft	4,710 sq ft	7,500 sq ft	7,500 sq ft	
Width, interior	60 ft	45 ft	45 ft	60 ft	60 ft	
Width, corner	75 ft	55 ft	50 ft	75 ft	75 ft	
Residential Density						
Maximum number of primary dwelling units per lot	1 dwelling	1 dwelling	1 dwelling	2 dwellings(1)	As provided by General Plan, but a minimum of 3 dwellings	As provided by General Plan
Maximum number of accessory/junior dwelling units per lot(11)	Up to 2 dwellings	Up to 2 dwellings	Up to 2 dwellings	Up to 2 dwellings	Up to 2 dwellings	Up to 2 dwellings
See Chapter 19.22 for accessory structure development standards for the following standards						
Setbacks (minimum)						

	Requirement by Zoning District					
	R1	**RS** with attached sidewalk[10]	**RS** with separated sidewalk[8], [10]	**R2**	**R3[2]**	**RMU**
Front[9]	20 ft for interior lots; 15 ft for corner lots; 20 ft minimum driveway depth	15 ft to living space or side wall of garage; 12.5 ft to porch; 18 ft minimum driveway depth[6]	10 ft to first floor living space or side wall of garage; 7.5 ft to porch, but in no case may encroach into a PUE; 15 ft to second floor living space; 18 ft minimum driveway depth[6]	20 ft for interior lots; 15 ft for corner lots; 20 ft minimum driveways depth	20 ft minimum on all street frontages	None[7]
Sides[9]	5 ft interior; 15 ft street side on corner	5 ft interior; 12.5 ft street side on first floor; 15 ft street side on second floor	5 ft interior; 10 ft street side on first floor; 13 ft street side on second floor	5 ft interior; 15 ft street side on corner	5 ft interior; 20 ft minimum on all street frontages	None[7]
Rear	20% of lot depth; need not exceed 20 ft; 10 ft minimum[3]	10 ft minimum with minimum useable open space of 700 sq ft or 500 sq ft where a usable front porch is provided[4]	10 ft minimum with minimum useable open space of 500 sq ft[4]	20% of lot depth; need not exceed 20 ft; 10 ft minimum	20 ft; 20 ft minimum on all street frontages	None[7]
Lot Coverage (primary buildings)	35% for 2 story; 45% for 1 story	None[4]	None[4]	40%	50%	None[7]
Height Limits	35 ft	35 ft	35 ft	35 ft	45 ft[5]	None[7]

	Requirement by Zoning District					
	R1	**RS** with attached sidewalk(10)	**RS** with separated sidewalk(8), (10)	**R2**	**R3(2)**	**RMU**
Additions to the primary structure greater than 700 square feet in area(12)	May only be permitted upon approval of an Administrative Permit					

Notes:

(1) Attached or detached. Detached dwelling units must maintain a minimum 10-foot building separation.

(2) The general development standards for the R3 district may be modified through approval of a Design Review Permit.

(3) On corner lots, the minimum rear setback may be determined by using an average of three measurements taken at the ends of the structure and a point midway between the ends of the structure. The measurements shall be made perpendicular to the rear lot line.

(4) The rear and side yards may be utilized to meet the minimum usable open space provided the minimum dimension, measured perpendicular to the applicable rear or side yard is 10 feet. Maximum coverage is a function of lot size, required setbacks and usable open space. A minimum usable open space of 500 square feet may be applied where a front porch is provided with minimum dimensions of six feet by 10 feet exclusive of entry way.

(5) Except for units immediately adjacent to the R1 and RS zone districts, where the height limit shall be 35 feet.

(6) Minimum driveway depth of 18 feet requires a roll-up garage door.

(7) As provided in development standard overlay or special area overlay district.

(8) Sidewalk separated from back of curb by five-foot planter strip.

(9) Front setback (and side setback where adjacent to street) measured from back of walk. Fence side yard setback is five feet from back of walk where facing a street. In the absence of sidewalk, setbacks measured from the edge of right-of-way.

(10) Variations to the standards and other housing product types may be permitted subject to processing of a Design Review Permit for Residential Subdivision (DRRS) concurrent with the approval of a tentative subdivision map and review of product type.

(11) A combination of up to two accessory dwelling/junior accessory dwelling units are permitted within areas zoned to allow single-family, two-family or multi-family residential use provided the lot contains an existing or proposed single-family dwelling, two-family or multi-family unit as defined in Sections 19.08.080(F)(1) and (F)(2) (Residential Use Types) and the accessory dwelling/junior accessory dwelling unit complies with the standards identified in Chapter 19.60 (Accessory Dwelling Units). See Chapter 19.60 for the maximum number and combination of units allowed per lot. For purposes of density, accessory dwelling units shall be deemed to be an accessory use or an accessory building or structure and shall not be considered to exceed the allowable density for the lot upon which it is located.

(12) Additions (attached or detached) to primary structures that exceed 700 gross square feet in area may be permitted upon approval of an Administrative Permit, which may include a public hearing as provided in Sections 19.74.010 and 19.78.020. Excludes accessory dwelling units complying with the standards identified in Chapter 19.60 (Accessory Dwelling Units).

B. Clear Vision Triangle, Residential. The following standards shall apply to the installation of structures on corner parcels:

1. On a corner parcel, no fence, wall, sign or other structure, mounds of earth, or other visual obstruction over 36 inches in height above the top of the existing or planned curb elevation shall be erected or placed within a residential clear vision triangle (see Chapter 19.95 Definitions).

2. The foregoing provision shall not apply to public utility poles; trees trimmed (to the trunk) to a line at least eight feet above the elevation of the intersection; saplings or plant species of open growth habits and not planted in the form of a hedge, which are so planted and trimmed as to leave, at all seasons, a clear and unobstructed cross view; supporting members of appurtenances to permanent structures existing on the date that the ordinance codified in this section becomes effective; and official warning signs or signals.

C. Exceptions to Height Limits. Notwithstanding the requirements of subsection A, the following structures are permitted to exceed the maximum height limits, as follows:

Architectural features, mechanical equipment, chimneys, vents, and other architectural or mechanical appurtenances on buildings may be a maximum of 15 percent higher than the height limit of the applicable zone.

D. Exceptions to Setbacks. Notwithstanding the requirements of subsection A, the following structures are permitted to encroach into the required development setbacks, as follows:

1. Architectural features, such as but not limited to: cornices, eaves, canopies, fireplaces and similar features, but not any flat wall or addition creating living space, may encroach up to two feet into any required setback.

2. Covered, unenclosed projections attached to the primary structure may encroach up to six feet into any front yard setback.

E. Manufactured Homes. Manufactured homes are permitted in residential zones provided they meet the following architectural standards:

1. The manufactured home shall be covered with exterior material customarily used on conventional dwellings within the subdivision. The exterior covering material shall extend to the ground as close to grade as allowed by the manufacturer's recommendation;

2. The manufactured home shall have a minimum of 16-inch roof overhangs and roofing material on the manufactured home shall be compatible with other dwellings existing in the area and shall consist of materials customarily used on conventional dwellings. The roof shall have a minimum 2 1/2 in 12 pitch.

F. Landscaping Requirements in Setback Areas.

1. Single-Family and Two-Family Dwellings—Front-Yard and Street Side-Yard Setbacks.

a. Setback Area Paving Restrictions. A maximum of 50 percent of the required front-yard setback may be paved for off-street parking, driveways, walkways, or uncovered patio use. A maximum of 50 percent of the required street side-yard setback may be paved for off-street parking, driveways, walkways, or uncovered patio use; however, this maximum limitation does not apply to that portion of the street side-yard located behind a fence that is in compliance with the street side fence requirements set forth in Chapter 19.22 of this code. These requirements may be modified with approval of a Design Review Permit for Residential Subdivision (DRRS), as provided for in Article V of this title.

b. Landscape and Maintenance Requirements. The unpaved portion of a front-yard setback and street side-yard setback shall be landscaped, irrigated, and maintained. The landscape shall include grass, annuals, perennials, groundcover, shrubs, trees, or other living vegetation. Synthetic grass or artificial turf may be used if it is permeable and has a minimum pile height of 1.25 inches. Design elements like planters, rocks, mulch, or similar elements are permitted when integrated as part of the landscape. All landscaping materials shall be mowed, trimmed, and maintained as often as necessary to prevent overgrowth and blight. No junk, debris, or other similar materials shall be stored in the landscaped setback area.

c. Height Restrictions for Landscaping Located in the Clear Vision Triangle. All landscaping located within the clear vision triangle for corner lots, as defined in Section 19.95.030 of this code, shall not exceed three feet in height, except that trees exceeding three feet in height are allowed if the tree is maintained free of branches eight feet above the curb grade.

d. Vehicle Parking Requirements. Vehicles, including without limitation, automobiles, boats, campers, trailers, and other recreational vehicles, must be parked on a paved surface, as provided for in Section 11.20.110 of this code. Vehicles shall not be parked within the landscaped setback area.

2. Multi-Family Dwellings (Three or More Units)—Front-Yard and Street Side-Yard Setbacks. All minimum front-yard and street side-yard setbacks shall be landscaped, irrigated and maintained with primarily low ground cover or turf. The landscape shall include grass, annuals, perennials, groundcover, shrubs, trees, or other living vegetation. Synthetic grass or artificial turf may be used if it is permeable and has a minimum pile height of 1.25 inches. Design elements like planters, rocks, mulch, or similar elements are permitted when integrated as part of the landscape. All landscaping materials shall be mowed, trimmed, and maintained as often as necessary to prevent overgrowth and blight. No junk, debris, or other similar materials shall be stored in the landscaped setback area. Driveways and uncovered walkways are permitted to cross over the required front-yard and street side-yard setback. The required front-yard and street side-yard setbacks may not be paved for parking or patio areas. (Ord. 6198 § 1, 2020; Ord. 5974 § 8, 2018; Ord. 5663 § 3, 2016; Ord. 5428 § 1, 2014.)

19.10.040 Supplemental design standards in the residential small lot (RS) district.

A. Residential Design Standards. In addition to the residential zone development standards listed above, the following supplemental design standards apply in all residential small lot (RS) districts:

1. Front Yard Stagger. None required, but optional per unit design.

2. Stagger for Third Car Garage. Two feet between third car bay and two-car garage.

3. **Two-Story Unit Mix.** No limit.

4. **Separation Between Second Story Elements.** A minimum of 10 feet shall be provided between second story elements of adjacent two-story dwellings.

5. **Building Exterior.** Architectural treatment shall be applied to all elevations of a building. At a minimum, all doors, windows and other wall openings shall be trimmed consistent with the architectural style. Panelized windows or other architectural treatment shall be used on all garage doors.

B. Exceptions. The supplemental design standards as listed above may be modified, expanded or eliminated through the approval of a Design Review Permit for Residential Subdivision (DRRS), as provided for in Article V of this title.

C. Expiration of Supplemental Design Standards Requirements. Supplemental design standards requirements do not apply to any residential dwelling unit that has received a final occupancy permit, unless a Design Review Permit for residential subdivision specifies a different (longer) term. (Ord. 5428 § 1, 2014.)

19.10.045 Design review required for compact residential development.

⚠ **Alert:** This item has been affected by: Ordinance 6538. See the CodeAlert page for details on recent amendments and newly-added provisions.

A. Applicability. Design review shall be required for compact residential development projects that qualify under either of the following:

1. Attached or detached single-family housing units on property with a General Plan land use designation of medium density residential or higher (seven dwelling units per acre or higher, as depicted on the General Plan Land Use Map) (except for properties within the Downtown Specific Plan area); or

2. Residential projects of any density on a parcel or parcels zoned small lot residential (RS) where modifications to the RS supplemental design standards are requested.

B. Approvals Required. Compact residential development projects shall require approval of a Design Review Permit for Residential Subdivision (DRRS). The Approving Authority for a DRRS shall be the Planning Commission or as otherwise provided in Section 19.74.010(D).

C. Exceptions. The residential development standards identified in Section 19.10.030(A) applying to compact residential development projects may be modified, expanded, or eliminated through the approval of a Design Review Permit for Residential Subdivision (DRRS), as provided for in Article V of this title.

D. Modification. Modifications to a DRRS previously approved by the Planning Commission may be approved by the Planning Manager, pursuant to the requirements of Section 19.76.180. (Ord. 5428 § 1, 2014.)

Contact:

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Police Department

On behalf of the men and women of the Roseville Police Department, welcome to our website. We are dedicated to improving the quality of life in our city through relentless problem solving and working in partnership with our larger community.

This site contains useful information that will provide you with knowledge of what is occurring in your neighborhood and how we can work together to ensure our neighborhoods and business districts remain safe places to live, work and play.

We encourage you to sign up for our **public safety and neighborhood news alerts here.** You can also follow us on **Facebook** (City of Roseville Public Safety); **Twitter** (RSVL_Pub_Safety); and **Instagram** (@RosevillePolice).

The latest edition of our **911 Newsletter** can be found by clicking **here**

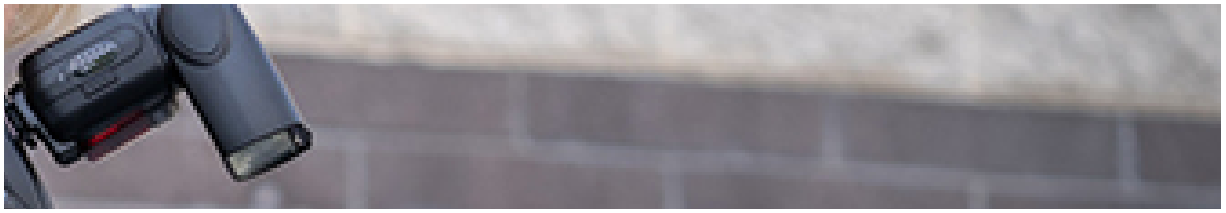
Take a look at our **Annual Summary** which outlines some of the major accomplishments, workload, and general structure of the Department.

Thank you for visiting your police department's website, and we look forward to working with you to ensure Roseville remains a great city.

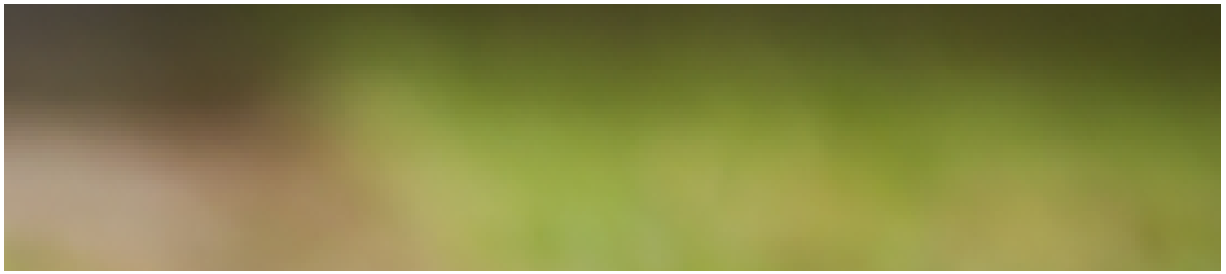
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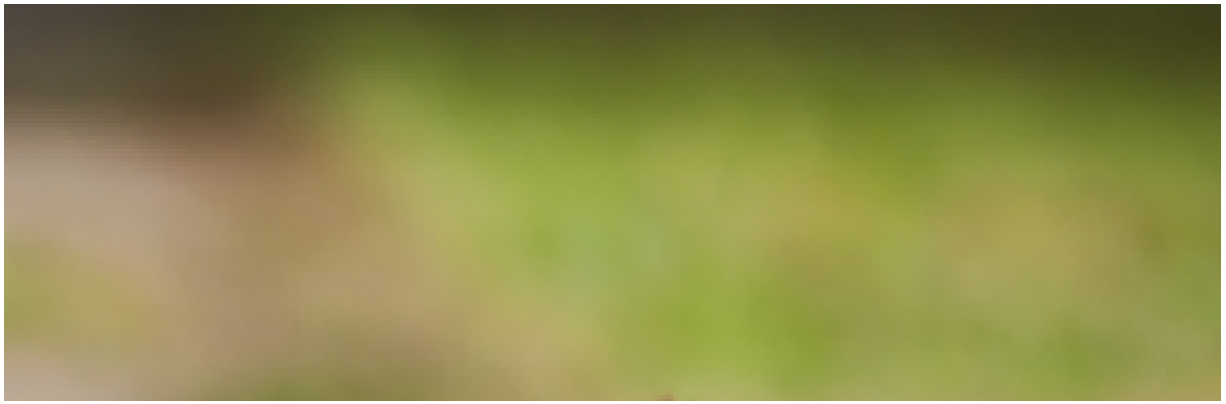



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No. 1545-2205





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Roseville, Ca 95678
916-774-5000 (Non-emergency)

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FIDDYMENT RANCH - PHASE 3
ROSEVILLE, CALIFORNIA

PHASE I ENVIRONMENTAL SITE ASSESSMENT

SUBMITTED TO
Mr. Clifton Taylor
Taylor Builders LLC
508 Gibson Drive, Suite 260
Roseville, CA 95678

PREPARED BY
ENGEO Incorporated

December 12, 2019

PROJECT NO.
16880.000.000

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ENGEO
Expect Excellence

Project No.
16880.000.000

December 12, 2019

Mr. Clifton Taylor
Taylor Builders LLC
508 Gibson Drive, Suite 260
Roseville, CA 95678

Subject: Fiddyment Ranch - Phase 3
North Hayden Parkway
Roseville, California

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Dear Mr. Taylor:

ENGEO is pleased to present our phase I environmental site assessment of the subject property (Property), located in Roseville, California. The attached report includes a description of the site assessment activities, along with ENGEO's findings, opinions, and conclusions regarding the Property.

ENGEO has the specific qualifications based on education, training, and experience to assess the nature, history, and setting of the Property, and has developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312 and the American Standard Testing Method (ASTM) Practice E1527-13. We declare that, to the best of our professional knowledge and belief, the responsible charge for this study meets the definition of Environmental Professional as defined in Section 312.10 of 40 CFR Part 312 and ASTM E1527-13.

We are pleased to be of service to you on this project. If you have any questions concerning the contents of our report, please contact us.

Sincerely,

ENGEO Incorporated

Travis Chatters

Shawn Munger, CHG

tc/sm/dt

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EXECUTIVE SUMMARY

ENGEO conducted a phase I environmental site assessment for the property located at North Hayden Parkway in Roseville, California (Property). The Property is approximately 374.2 acres in area and is identified by Assessor's Parcel Numbers (APNs) 492-011-016-000 and 492-012-085-000.

The Property consists of predominantly undeveloped land to the north and south, with residential development at the center of the Property. Review of historical records indicates that the Property has remained undeveloped land since at least 1937.

This assessment included a review of local, state, tribal, and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources. A reconnaissance of the Property was conducted to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials and interviews with persons knowledgeable about current and past site use.

The site reconnaissance and records review did not find documentation or physical evidence of soil, soil gas, or groundwater impairments associated with the use or past use of the Property. A review of regulatory databases maintained by county, state, tribal, and federal agencies found no documentation of hazardous materials violations or discharge on the Property and did not identify contaminated facilities within the appropriate American Society for Testing and Materials (ASTM) search distances that would reasonably be expected to impact the Property.

Based on the findings of this assessment, no Recognized Environmental Conditions (RECs), no historical RECs, and no controlled RECs were identified for the Property.

ENGEO has performed a phase I environmental site assessment in general conformance with the scope and limitations of ASTM E1527-13 and the standards and practices of the All Appropriate Inquiry – Final Rule (40 Code of Federal Regulations Part 312). Any exceptions to, or deletions from, this practice are described in Section 5.1 of this report.

ENGEO recommends no further environmental studies at this time.

1.0 INTRODUCTION

1.1 SITE LOCATION AND DESCRIPTION

ENGEO conducted a phase I environmental site assessment for the Property located at North Hayden Parkway in Roseville, California (Figures 1 and 2). The approximately 374.2-acre Property is identified as APNs 492-011-016-000 and 492-012-085-000 (Figure 3) and is currently occupied predominantly undeveloped land to the north and south, with ongoing development at the center of the Property.

1.2 CURRENT USE OF PROPERTY AND ADJOINING PROPERTIES

The predominantly undeveloped Property consists of sparsely vegetated low hills and partially developed lots. Pleasant Grove Creek and an associated riparian corridor with oak trees crosses the Property from east to west in the southern portion of the Property. Drainage is generally towards Pleasant Grove Creek. Several unpaved roads and trails cross the Property, including the future Hayden Parkway extension, which is in various stages of construction. Numerous manholes and other indications of underground utilities are present along the unpaved roads.

The northeastern portion of Village 3A (Figure 2) is being developed with an elementary school, including partially completed school structures, paved parking areas, and associated underground improvements. The structure area is surrounded with a chain-link fence. Also in the vicinity of the future school is a cluster of construction offices and storage containers, and various construction materials. The eastern portion of Village 3B appears to have been mass graded.

Undeveloped land is located to the west and north of the Property, while residential development is location to the east and south.

1.3 SITE AND VICINITY CHARACTERISTICS

According to Google Earth (WGS84), the Property ranges in elevation from approximately 110 feet above mean sea level (msl) at the center of the Property, to approximately 75 feet above msl to the south. Review of the Preliminary Geologic Map of the Sacramento Quadrangle found that the Property is underlain primarily by Turlock Lake Formation, with Riverbank Formation located to the south and Holocene Basin deposits located on the northwest corner of the Property.

We reviewed the Department of Water Resources On-line Water Data Library for depth to water in the vicinity of the Property. The website identified six wells within 1 mile of the Property The following information was obtained regarding local groundwater conditions.

TABLE 1.3-1: Local Groundwater Conditions

PROXIMITY TO PROPERTY (MI)	DIRECTION FROM PROPERTY	REPORTED DEPTH TO GROUNDWATER (FT)
0.2	West	73 to 97
0.2	West	83 to 96
0.2	West	82 to 96
0.4	West	71 to 116
0.7	East	17 to 66
0.8	Southeast	83 to 86

We reviewed EnviroStor, a website maintained by the State of California Department of Toxic Substances Control, and GeoTracker, a website maintained by the State of California Water Resources Control Board, for nearby facilities with records that include depth to groundwater measurements. No groundwater information was identified within the vicinity of the Property.

The site-specific depth to groundwater and direction of groundwater flow was not determined as part of this assessment. Fluctuations in groundwater levels may occur seasonally and over a period of years due to variations in precipitation, temperature, irrigation and other factors.

We reviewed the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) website and map database to determine if any historic oil and/or gas wells were located within the Property. No wells were mapped within 1 mile of the Property.

1.4 PURPOSE OF PHASE I ENVIRONMENTAL SITE ASSESSMENT

This assessment was performed at the request of Taylor Builders LLC for the purpose of environmental due diligence during property acquisition. The objective of this phase I environmental site assessment is to identify Recognized Environmental Conditions (RECs) associated with the Property. As defined in the ASTM Standard Practice E1527-13, an REC is "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

1.5 DETAILED SCOPE OF SERVICES

The scope of services performed included the following:

- A review of previous environmental reports prepared for the Property.
- A review of publicly available and practically reviewable standard local, state, tribal, and federal environmental record sources.
- A review of publicly available and practically reviewable standard historical sources, aerial photographs, fire insurance maps and physical setting sources.
- A reconnaissance of the Property to review site use and current conditions. The reconnaissance was conducted to check for the storage, use, production or disposal of hazardous or potentially hazardous materials.
- Interviews with owners/occupants and public sector officials.
- Preparation of this report with our findings, opinions, and conclusions.

1.6 SIGNIFICANT ASSUMPTIONS OR DEVIATIONS FROM ASTM STANDARD PRACTICE

There were no significant deviations from ASTM E1527-13.

1.7 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The professional staff at ENGEO strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. The recommendations and conclusions presented in this report were based on the findings of our study, which were developed solely from the contracted services. The findings of the report are based in part on contracted database research, out-of-house reports, and personal communications. The opinions formed by ENGEO are based on the assumed accuracy of the relied upon data in conjunction with our relevant professional experience related to such data interpretation. ENGEO assumes no liability for the validity of the materials relied upon in the preparation of this report.

This document must not be subject to unauthorized reuse; that is, reuse without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time. The findings from a phase I environmental site assessment are valid for one year after completion of the report. Updates of portions of the assessment may be necessary after a period of 180 days after completion.

This phase I environmental site assessment is not intended to represent a complete soil, soil gas, or groundwater characterization, nor define the depth or extent of soil, soil gas, or groundwater contamination. It is intended to provide an evaluation of potential environmental concerns associated with the use of the Property. A more extensive assessment that would include a subsurface exploration with laboratory testing of soil, soil gas, and groundwater samples could provide more definitive information concerning site-specific conditions. If additional assessment activities are considered for the Property and if other entities are retained to provide such services, ENGEO cannot be held responsible for any and all claims arising from or resulting from the performance of such services by other persons or entities. ENGEO can also not be held responsible from any and all claims arising or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

1.8 SPECIAL TERMS AND CONDITIONS

ENGEO has prepared this report for the exclusive use of our client, Taylor Builders LLC. It is recognized and agreed that ENGEO has assumed responsibility only for undertaking the study for the client. The responsibility for disclosures or reports to a third party and for remedial or mitigative action shall be solely that of the Client.

Laboratory testing of soil or groundwater samples was not within the scope of the contracted services. The assessment did not include an asbestos survey, an evaluation of lead-based paint, an inspection of light ballasts for polychlorinated biphenyls (PCBs), a radon evaluation, or a mold survey.

This report is based upon field and other conditions discovered at the time of preparation of ENGEO's assessment. Visual observations referenced in this report are intended only to represent conditions at the time of the reconnaissance. ENGEO would not be aware of site contamination, such as dumping and/or accidental spillage, that occurred subsequent to the reconnaissance conducted by ENGEO personnel.

2.0 RECORDS REVIEW

2.1 PROPERTY RECORDS

2.1.1 Title Report/Ownership

The Title Report lists recorded land title detail, ownership fees, leases, land contracts, easements, liens, deficiencies, and other encumbrances attached to or recorded against a subject property. Laws and regulations pertaining to land trusts vary from state to state and the detail of information presented in a Title Report can vary greatly by jurisdiction. As a result, ENGEO utilizes a Title Report, when provided to us, as a supplement to other historical record sources.

A Preliminary Title Report for the Property, prepared by Old Republic Title Company and dated November 5, 2019, was provided for our review. The Property title is vested in ATC Realty One, LLC, a Delaware limited liability company. No references to environmental liens, deed restrictions or other potential environmental issues were noted. This report is included in Appendix D.

2.2 PREVIOUS ENVIRONMENTAL REPORTS

Rosewood Environmental Engineering; Phase I – Environmental Site Assessment, Fiddyment Property, Roseville, California; Project No. REE 01-15A-99; August 6, 1999.

Rosewood Environmental Engineering (Rosewood) prepared a Phase I ESA for the approximately 1,700 acre Fiddyment Property, consisting of predominantly undeveloped agricultural land with 5 small areas of residential/commercial development. A review of the site history indicated the site has been a turkey ranch from 1875 to 1990. Cattle, chicken, and sheep ventures were tried at the ranch during different periods. Wheat and oat hay were grown on the ranch for feed. Other crops tried at the ranch in various locations included clover, rice, grapes, and row crops. Pistachios were also grown from 1965 to approximately 2005. The orchard had replaced a vineyard which had operated from approximately 1930 to 1955. Rosewood recommended the following:

- All wells that are not to be used be properly abandoned and permitted as closed
- That prior to site grading activities, all areas with drum and/or liquid container storage, car parts and/or debris, storage tanks, be cleared and reassessed for leaks and staining. All such areas identified should be analyzed for possible hydrocarbon, pesticide, and/or metal contaminations.
- The soil around the former turkey barn be analyzed for residual formaldehyde.

Our review of the report indicates the structures, wells, orchard area, and animal/agriculture areas identified were all located to the south, beyond the Property boundary.

2.3 HISTORICAL RECORD SOURCES

The purpose of the historical record review is to develop a history of the previous uses or occupancies of the Property and surrounding area in order to identify those uses or occupancies that are likely to have led to recognized environmental conditions on the Property.

2.3.1 Historical Topographic Maps

Historical USGS topographic maps were reviewed to determine if discernible changes in topography or improvements pertaining to the Property had been recorded. The following maps were provided to us through an EDR Historical Topographic Map Report, presented in Appendix C.

TABLE 2.3.1-1: Historical Topographic Maps

QUAD	YEAR	DESCRIPTION
Sacramento	1891, 1892, 1893	Property: Pleasant Grove Creek is mapped on the south end of the Property. A roadway is shown along the northern Property boundary. Adjoining: Pleasant Grove Creek is mapped to the east and west of the Property. Fiddyment Road is shown to the east.
Roseville, Pleasant Grove	1910	Property: A structure is mapped on the northeast corner of the Property. An east-west trending intermittent stream is denoted on the northern portion of the site. A north-south trending roadway is mapped along the western Property boundary. Adjoining: A creek is mapped ½ mile to ¼ mile north of the Property. A structure is mapped west of the Property border. Kaseberg Creek is shown to the southeast
Markham Ravine	1941, 1942	Property: The intermittent stream mapped on the northern portion of the site is no longer present. A roadway is noted on the northeast corner of the Property. Adjoining: Two structures are mapped near the northeast corner of the Property. A north-south trending roadway is shown east of the site. Additional structures are mapped to the west. Fiddyment Ranch is mapped south of the Property.
Roseville, Pleasant Grove	1953, 1967, 1975, 1981, 1992, 2012	Property: An intermittent stream is shown entering the property from the east. A portion of an airstrip enters the southern portion of the Property; the airstrip has been removed by 1967. A portion of the western 1975 and 1992 topographic maps are missing. The structures on the northeast corner is no longer present by 1992. Adjoining: The structures to the east are no longer present. A well is mapped north of the Property border in 1967. The structure near the northeast corner is no longer present by 2012.

2.3.2 Aerial Photographs

The following aerial photographs, provided by EDR, were reviewed for information regarding past conditions and land use at the Property and in the immediate vicinity. These photographs are presented in Appendix E.

TABLE 2.3.2-1: Aerial Photographs

YEAR	DESCRIPTION
1937	Property: A structure is visible on the northeast corner of the Property. The Pleasant Grove Creek is located on the southern end of the Property. Adjoining: A structure is located just beyond the western Property boundary and along the northeastern Property border.
1947, 1952	Property: Earthwork that appears to be associated with the airstrip from the 1953 topographic map is visible on the southern end of the Property. Adjoining: The airstrip earthwork extends to the south of the Property. The structure to the west is no longer visible.
1966, 1975	Property: The earthwork associated with the airstrip to the south. There appears to be minor dry crop cultivation just north of the Pleasant Grove Creek. Adjoining: The dry crop cultivation extends to the east.
1984, 1993, 1998	Property: Structures are no longer visible on the northeast. The dry crop cultivation the south is no longer visible by 1993. Adjoining: It appears the Property to the north is being use for rice farming, but is no longer visible by 1998. There is minor development to the southwest and southeast.
2006, 2009, 2012, 2016	Property: There is minor earth disturbance along the northeastern Property boundary. Adjoining: There is residential development to the northeast and to the south.

2.3.3 Fire Insurance Maps

EDR reported that no maps were available for the Property and surrounding properties.

2.3.4 City Directory

City Directories, published since the 18th century for major towns and cities, lists the name of the resident or business associated with each address. A city directory search conducted by EDR is located in Appendix F. No listings for the Property were identified.

2.4 ENVIRONMENTAL RECORD SOURCES

EDR performed a search of federal, tribal, state, and local databases regarding the Property and nearby properties. Details regarding the databases searched by EDR are provided in Appendix A. A list of the facilities documented by EDR within the approximate minimum search distance of the Property is provided below.

2.4.1 Standard Environmental Records

2.4.1.1 Subject Property

The Property is on the Standard Environmental Record source databases under ENVIROSTOR as “Roseville City SD - F-71 Proposed New Elementary School”. The Department of Toxic Substances Control’s (DTSC’s) Site Mitigation and Brownfields Reuse Program’s (SMBRP’s) EnviroStor database identifies sites that have known contamination or sites for which there may

be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites. A review of the Property on ENVIROSTOR indicated the site is listed due to a proposed school on the Property.

2.4.1.2 Other Properties

The following database(s) include(s) facilities listed within the appropriate ASTM search distances of the Property on Standard Environmental Records sources.

TABLE 2.4.1.2-1

FACILITY	STREET	DATABASE(S)
Westplan Substation	2200 Blue Oaks Blvd	AST
City Of Roseville-Roseville Energy Park	5120 Phillip Rd	AST
Rep Switchyard	5120 Phillip Rd	RCRA-SQG
Elementary School (F-70)	Fiddyment Road/Blue Oaks Boulevard	ENVIROSTOR
Elementary School (W-75)	Fiddyment Road/Del Webb Boulevard	ENVIROSTOR
Middle School (W-73)	Fiddyment Road/Del Webb Boulevard	ENVIROSTOR
Comprehensive High School #6	Southwest Of The Intersection Of High School Road	ENVIROSTOR

2.4.2 Additional Environmental Records

2.4.2.1 Subject Property

The Property is listed on the Additional Environmental Record source databases under SCH as “Roseville City SD - F-71 Proposed New Elementary School”. The SCH category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose. A review of the Property ENVIROSTOR indicates the Property is listed on this database due to a proposed school on the Property.

2.4.2.2 Other Properties

The following database(s) include(s) facilities listed within the appropriate ASTM search distances of the Property on the Additional Environmental Record sources.

TABLE 2.4.2.2-1

FACILITY	STREET	DATABASE(S)
Esway Mobile Mechanic	2501 Hayden Pkwy Unit 413	RCRA NONGEN / NLR
City Of Roseville-Roseville Energy Park	5120 Phillip Rd	RCRA NONGEN / NLR,CERS HAZ WASTE,CERS TANKS,NPDES,CIWQS,CERS
Rep Switchyard	5120 Phillip Rd	FINDS,HAZNET
Verizon Wireless (Fiddyment)	2150 Blue Oaks Blvd	EMI,CA PLACER CO. MS,CERS
Elementary School (F-70)	Fiddyment Road/Blue Oaks Boulevard	SCH
Elementary School (W-75)	Fiddyment Road/Del Webb Boulevard	SCH
Middle School (W-73)	Fiddyment Road/Del Webb Boulevard	SCH,CERS
Comprehensive High School #6	Southwest Of The Intersection Of High School Road	SCH

Based on the distances to the identified database sites, regional topographic gradient, and the EDR findings, it is unlikely that the above-stated database sites pose an environmental risk to the Property. Properties that are on the "Orphan Summary" list appear to be located within the ASTM recommended radius search criteria. However, the sites are at a lower elevation, are listed under CIWQS, and are not anticipated to pose a risk to the Property.

2.5 REGULATORY AGENCY FILES AND RECORDS

The following agencies were contacted pertaining to possible past development and/or activity at the Property.

TABLE 2.5-1: Regulatory Agency Records

NAME OF AGENCY	RECORDS REVIEWED
City of Roseville City Clerk	We submitted a records request to the Roseville City Clerk for documents pertaining to the Property. No documents were identified at the time of report publication.
City of Roseville Fire Department	We contacted the City of Roseville Fire Department for documents pertaining to the Property; the Department requested that all inquiries be submitted as a records request with the City Clerk.
Placer County Department of Environmental Health	We contacted the Placer County Department of Environmental Health for documents pertaining to the Property; the Department informed us the Property was under City of Roseville jurisdiction, and suggested we submit inquiries to the City.
Placer County Assessor's Office	The Assessor's Office online database was used to confirm the Parcel Number and physical address, if any, for the Property. The Assessor's Office identified an address of 2450 Blue Oaks Boulevard for APN 492-012-085-000, and an address of 2900 N Hayden Parkway for APN 492-011-016-000.
California State Water Resources Control Board	The California Regional Water Quality Control Board's online database, GeoTracker, was reviewed for files relating to the Property. No listings are documented for the Property.

NAME OF AGENCY	RECORDS REVIEWED
Department of Toxic Substances Control	The Department of Toxic Substances Control's online database, EnviroStor, was reviewed for files pertaining to the Property. A DTSC No Action Determination in response to a Phase I ESA and a Site Visit Summary, both dated March 2018, were identified for the proposed school site located within APN 492-011-016-000. The Phase I ESA was not available on ENVIROSTOR; however, DTSC noted concurrence with the ESA, and determined that further environmental investigation of the site was not required.

3.0 SITE RECONNAISSANCE

3.1 METHODOLOGY

ENGEO conducted a reconnaissance of the Property on December 5, 2019. Stephen Blakely, an ENGEO Staff Geologist, performed the reconnaissance. The Property was viewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The Property was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks. Photographs taken during the site reconnaissance are presented in Figure 4.

3.2 GENERAL SITE SETTING

The predominantly undeveloped Property consists of sparsely vegetated low hills and partially developed lots. Pleasant Grove Creek and an associated riparian corridor with oak trees crosses the Property from east to west in the southern portion of the Property. Drainage is generally towards Pleasant Grove Creek. Several unpaved roads and trails cross the Property, including the future Hayden Parkway extension, which is in various stages of construction. Numerous manholes and other indications of underground utilities are present at or near several of the unpaved roads. Two stormwater discharge areas are present on the Property – one in the northeast corner of Village 3B, and one south of Village 3A at Pleasant Grove Creek.

The northeastern portion of Village 3A is being developed with an elementary school, and has numerous partially completed school structures, paved parking areas, associated underground improvements, and is surrounded with a chain-link fence. Also in the vicinity of the future school is a cluster of construction offices and storage containers, and construction materials. The eastern portion of Village 3B appears mass graded.

The adjoining properties to the east are currently developed as residential subdivisions. The property to the north is undeveloped. A single-family residence and several associated outbuildings is located to the southwest of Village 3A; the remaining land to the west remains largely undeveloped. Blue Oaks Boulevard is currently being constructed to the south, and the southern adjoining property appears undeveloped.

3.3 SITE OBSERVATIONS

The following table summarizes our observations during the reconnaissance:

TABLE 3.3-1: Site Observations

FEATURE TYPE	OBSERVATIONS
Structures	Several partially completed structures were observed in the eastern portion of Village 3A, associated with the under-construction Riego Creek Elementary School. Additionally, several temporary mobile construction offices were present at the school site.
Hazardous Substances and Petroleum Products/Containers	No evidence of spills or leaks were observed during site reconnaissance.
Storage Tanks (underground and above-ground)	Temporary above-ground water storage tanks were observed during the site reconnaissance.
Odors	No odors were observed during the reconnaissance.
Pools of Potentially Hazardous Liquid	No pools of liquid were observed during the reconnaissance.
Drums	No drums were observed during the reconnaissance.
Polychlorinated Biphenyls (PCBs)	No PCB-containing sources was identified during the reconnaissance.
Pits, Ponds, and Lagoons	Several apparent stormwater retention / settling basins were observed on the Property. Two settling ponds were observed south of Village 3A and north of Pleasant Grove Creek. An apparent shallow basin was observed in the northern portion of Village 3B.
Stained Soil/Pavement	No stained soil or pavement was observed during the reconnaissance.
Stressed Vegetation	No stressed vegetation was observed during the reconnaissance.
Solid Waste/Debris	Multiple solid waste piles were observed on the Property at the time of reconnaissance. At the northeastern corner of Village 3B, several large piles of debris were located near the stormwater discharge station. Numerous piles of construction debris were strewn about the active work areas in the eastern portions of Villages 3A and 3B.
Stockpiles/Fill Material	Multiple stockpiles were observed during the reconnaissance. A large stockpile and numerous individual “end dump” piles were observed in the southeast corner of Village 3A. These stockpiles appeared to be related to recent construction activities, and contained some construction debris including concrete, wood, and aggregate. Numerous other individual piles were observed throughout the Property, and appeared associated with construction activities. The various stockpiles consisted of soil, aggregate base, and crushed rock. No obvious hazardous materials, odors, or stained soils were noted.
Wastewater	No wastewater was observed during the reconnaissance.
Wells	No wells were observed during the reconnaissance.
Septic Systems	Underground sanitary sewer lines have been installed at the Property. No evidence of private septic systems were observed on the Property.

3.4 ASBESTOS-CONTAINING MATERIALS AND LEAD-BASED PAINT

An asbestos and lead-based paint survey was not conducted as part of this assessment. No structures are currently located on the Property.

3.5 INDOOR AIR QUALITY

An evaluation of indoor air quality, mold, or radon was not included as part of the contracted scope of services. The California Department of Health Services has conducted studies of radon risks throughout the state, sorted by zip code. Results of the studies indicate that 15 tests were conducted within the Property zip code, with none of the tests exceeding the current EPA action level of 4 picocuries per liter {pCi/L}[1]).

In accordance with ASTM E2600-15 (Tier 1) (*Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*); There are no potential petroleum hydrocarbon sources for vapor intrusion within 1/10 mile of the Property or volatile organic compound (VOCs) sources within 1/3 mile of the Property.

4.0 INTERVIEWS

Clifton Taylor completed the Client based environmental site assessment questionnaire pertaining to applicable past and present uses and physical characteristics of the Property and surrounding properties. In the questionnaire, Mr. Taylor did not identify potential environmentally related issues with the Property. The questionnaire is presented in its entirety in Appendix G.

5.0 EVALUATION

5.1 OPINIONS AND DATA GAPS

It is our opinion that the findings of this study are based on a sufficient level of information obtained during our contracted scope of services to render a conclusion as to whether additional appropriate investigation is required to identify the presence or likely presence of a REC. We note the following data gaps:

- We did not receive a response from the City of Roseville City Clerk at the time of report publication.
- We did not receive a Key Site Manager questionnaire at the time of report publication.

The data gaps identified during this process, if any, do not affect the conclusions as to the presence or lack of presence of RECs at the Property.

5.2 FINDINGS AND CONCLUSIONS

The study included a review of local, state and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources; a reconnaissance of the Property to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials; and interview with persons knowledgeable about current and past site use.

[1] California Department of Public Health – Radon Program– (https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/Radon/Radon%20Test%20Results.pdf).

The site reconnaissance and records review did not find documentation or physical evidence of soil, soil gas, or groundwater impairments associated with the use of the Property. A review of regulatory databases maintained by county, state, and federal agencies found no documentation of hazardous materials violations or discharge on the Property. A review of regulatory agency records and available databases did not identify contaminated facilities within the appropriate ASTM search distances that would be expected to impact the Property.

Based on the findings of this assessment, no RECs, no historical RECs, and no controlled RECs were identified for the Property.

ENGEO has performed a phase I environmental site assessment in general conformance with the scope and limitations of ASTM E1527-13 and the standards and practices of the All Appropriate Inquiry – Final Rule (40 Code of Federal Regulations Part 312). This assessment has revealed no evidence of Recognized Environmental Conditions in connection with the Property.

ENGEO recommends no further environmental studies at this time.

SELECTED REFERENCES

Gutierrez, C.I., California Geological Survey (CGS). (2011). Preliminary Geologic Map of the Sacramento 30' x 60' Quadrangle, California [map]. 1:100,000.

Google Maps (http://maps.google.com)

California Department of Water Resources
(http://www.water.ca.gov/waterdatalibrary/)

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Rosewood Environmental Engineering; Phase I – Environmental Site Assessment, Fiddyment Property, Roseville, California; Project No. REE 01-15A-99; August 6, 1999.