

Draft

Environmental Impact Report

NORTH CENTRAL ROSEVILLE SPECIFIC PLAN

SCH# 88053010

*City of Roseville
Planning Department
July 1989*

*Technical Assistance
R.C. Fuller Associates
EIP Associates*

**DRAFT
ENVIRONMENTAL IMPACT REPORT**

**NORTH CENTRAL ROSEVILLE
SPECIFIC PLAN**

SCH# 88053010

**Prepared for
City of Roseville**

**With technical assistance from
R.C. Fuller Associates
EIP Associates**

July 1989



CITY OF ROSEVILLE

TRADITION • PRIDE • PROGRESS

316 VERNON STREET • ROSEVILLE, CALIFORNIA 95678 • PHONE (916) 781-0200

July 7, 1989

To: Interested Parties

From: City of Roseville Planning Department
316 Vernon Street
Roseville, CA 95678

Subject: Draft Environmental Impact Report for the North Central
Roseville Specific Plan

The Roseville Planning Department is forwarding this document for review and comment to all agencies, organizations, and interested persons indicated on the enclosed distribution list. Reviewers should focus on the comprehensiveness and accuracy of the E.I.R. in discussing possible impacts upon the environment, mitigation measures, and alternatives to the project.

The Draft Environmental Impact Report is being circulated for a 45-day review period. Persons responding are urged to submit their comments in writing. All comments should be received by the Planning Department at the above address no later than 5:00 p.m., Monday, August 21, 1989. Both written comments and oral testimony from the public hearings will be incorporated into the Final E.I.R. Please retain a copy of the Draft E.I.R. Unless substantial modifications are needed, the Draft E.I.R. plus an addendum may serve as the final document.

A copy of this document has been forwarded for public review to the central branch of the Roseville City Library at 225 Taylor Street. In addition, a copy may be reviewed at the City Planning Department.

If you have any questions regarding this Draft E.I.R., please contact Daniel E. Dameron or Julia Shpak at (916) 781-0276.

Sincerely,

Daniel E. Dameron
Associate Planner

DED:so
Enclosures

DRAFT E.I.R. - N.C.R.S.P.
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FOREWORD

FOREWORD

A specific plan is a policy document which bridges the gap between a city's general plan and individual development proposals. A specific plan enables a city to establish guidelines and criteria for development of a relatively large area prior to submittal of specific development requests by individual landowners within the area. Although the level of detail may vary, a specific plan generally addresses concerns of a larger scale than those included in individual project proposals. Typical concerns of a specific plan could include development of arterial roadways and major infrastructure, school sites, park sites, and other amenities necessary to facilitate orderly development of individual projects. Items established by a specific plan include:

- ⌘ Development standards and design guidelines for land use, buildings, public facilities, and roadways;
- ⌘ Population density and building intensity standards;
- ⌘ Open space;
- ⌘ Project phasing in relation to infrastructure requirements;
- ⌘ Capital and improvement financing requirements.

Project Overview

In November of 1985, the Roseville City Council by resolution amended the Land Use Element of the General Plan. This provided for the development of Specific Plans for four areas of the City, known as the Northeast, Southeast, North Central, and Northwest Plan areas. Tentative land use allocations were made, with final adoption contingent upon the presentation and approval of Specific Plans and Development Agreements for the subject properties. The necessary documents for development of the Northeast and Southeast Plan areas have been adopted, and development of those Plan areas is underway. In August of 1986, a Notice of Preparation (NOP) for development of a Northwest Roseville Specific Plan was circulated, followed closely in September by an NOP for the North Central Roseville Specific Plan.

Simultaneous preparation of both Specific Plans provided the impetus for combining the environmental review into a single EIR document, the North Roseville Specific Plans Draft Environmental Impact Report, which was circulated in August of 1987. Following public circulation and review by state agencies, the Draft EIR was reviewed by the Roseville Project Review Commission (PRC), and subsequently, by the Roseville Planning Commission. Changes in landowners within the respective Plan areas, as well as continuing modifications of the proposed Specific Plans, resulted in a decision to process the Plans separately as originally intended. A revised Specific Plan and accompanying Environmental Impact Report were prepared for the Northwest Roseville Specific Plan, and these documents are currently approved. This project, the North Central Roseville Specific Plan, proposes development of the last of the four

Plan areas reviewed for development by the City Council in November of 1985. The NOP for this project was circulated for review from May 25 through June 27, 1988. The North Central Roseville Specific Plan and accompanying land use maps provide the basic information upon which this Environmental Impact Report is based. For reference, the Proponent Draft North Central Roseville Specific Plan is appended to this report.

The area encompassed by the North Central Roseville Specific Plan includes $\pm 2,315$ acres. The Specific Plan outlines development of this area to include ± 547 acres of business professional and/or commercial land use; ± 195 acres of light industrial land use; ± 201 acres of parks, preserves, and floodway land use; ± 526 acres of residential land use; ± 141 acres of arterial roadways, schools, public facilities, etc.; and ± 702 acres designated as urban reserve.

The North Central Specific Plan includes property owned by several parties. Consequently, the proposed Specific Plan is the end product of a coordinated effort between the various landowners and the City of Roseville. Present owners of property within the Plan area include Roseville 150 Center, RMB Realty Inc., CD Community Properties, Leonard and William Ostrow, Jack Pickart, PG&E, and the City of Roseville.

The City of Roseville is the Lead Agency for the Specific Plan. No Responsible Agencies have been designated by the City.

Existing Environmental Documents

The Highway 65 Transportation Corridor EIR, dated February 1981, is the only Environmental Impact Report previously prepared by R.C. Fuller and Associates and adopted which covers any portion of the Plan area. The Highway 65 EIR is supplemented by the Roseville Bypass Environmental Impact Statement prepared by CalTrans, May 1983. Other environmental documents which have been prepared for projects within the Plan area include Vernal Pool Resources, Inventory and Evaluation which was prepared for the City of Roseville by Western Ecological Services Company and Robert F. Holland, Ph.D., in 1982; additional vernal pool analyses prepared by Sugnet and Associates in 1988/89; seasonal bird use study, John Renlet, Sugnet Associates, 1989, Laurence Stromberg in July 1987, and Zentner and Zentner in February 1989; the Preliminary Evaluation of Groundwater Recharge 2000 Acre Area North of Roseville, prepared by Wallace Van Alstine & Kuhl, February 1986; the Supplemental Flood Plain Study, prepared by Nolte & Associates, August 1986; a hydrology study prepared by Gill and Pulver Engineers Incorporated, March 1989; the Transportation Impact Study, prepared by Fehr and Peers Associates, June 1989; the Fiscal Impact Analysis, prepared by Analytics, February 1989; the Downtown Retail Impact Study, prepared by Economics Research Associates, January 1989; A Cultural Resource Overview, prepared by Foothill Archaeological Services; and the Summary of Jobs to Housing Balance in the South Placer Region, prepared by Wade Associates, March 1989.

Source of Funding

No specific funding source for development within the Specific Plan area has been identified at this stage. Funding for development of the residential, commercial, and industrial portion of the Plan area is anticipated to be from private sources. Development of roadways, utilities, and other infrastructure will be from both public and private sources. Schools are anticipated to be funded through state funds, an assessment district(s), and/or development fees. Funding for the preparation of the Specific Plan and the EIR has been provided by the landowners.

Purpose and Scope of EIR

As provided in the California Environmental Quality Act (CEQA) Guidelines, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. In discharging this duty, the public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social (Section 15021 of the Public Resources Code). The EIR is an informational document, the purpose of which is to inform public agency decision makers and the general public of the significant environmental effects of a proposed project, to identify possible means to minimize the significant effects, and to describe reasonable alternatives to the project. The public agency is required to consider the information in the EIR along with any other information available in making its decision (Section 15121 of the Public Resources Code). Sections 15122 through 15132 describe the content requirement for Draft and Final EIRs. This information includes the environmental setting, environmental impact, mitigation measures, alternatives, short term uses versus long-term productivity, significant irreversible changes, growth inducing impacts, and cumulative impacts.

In accordance with CEQA Section 15182, no future EIR or negative declaration need be prepared for a residential project which is proposed in conformity with the adopted Specific Plan. This includes land subdivisions, zoning changes, and residential planned unit developments.

HOW TO USE THIS REPORT

The report includes five principal parts: Project Description; Summary of Findings; Environmental Analysis: Setting, Impacts, and Mitigation Measures; CEQA Considerations; and Appendices.

The **Project Description** includes a discussion of the location of the site, the existing uses occurring on the site, and the proposed site development plan.

The **Summary of Findings** presents an overview of the results and conclusions of the evaluation. This section provides an overview of project impacts and available mitigation measures, for use by the City in reviewing the project and establishing conditions under which the project may be developed.

The **Environmental Analysis** includes a topic-by-topic analysis of impacts that would or could result from implementation of the project. The results of field visits, data collection and review, and agency contacts are presented in the text.

The **CEQA Considerations** includes a discussion of issues required by CEQA: unavoidable adverse impacts; irreversible environmental changes; relationship between short-term uses of the environment and enhancement of long-term productivity; growth inducement; cumulative analysis; and alternatives to the project.

The **Appendices** contain a number of additional reference items which were used in the preparation of this report. Included are the Initial Study prepared by the City and information pertaining to the specific subsections, such as geology, vegetation, air quality, and cultural resources. Note: The Appendices are bound in a separate volume due to their length.

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- B. Project Related Correspondence
- C. Proponent Draft - North Central Roseville Specific Plan
- D. Gilland Pulver Hydrology Study
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 - E.1 Detailed Wetlands Study, Sugnet and Associates
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- G. Vernal Pool Wildlife List
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- J. Roseville Tree Ordinance
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PROJECT DESCRIPTION

1. PROJECT DESCRIPTION

1.1 Background

In November 1985, the Roseville City Council by resolution amended the Land Use Element of the General Plan. This provided for the development of Specific Plans for three areas of the City, known as the Northeast, North Central, and Northwest Plan areas. Tentative land use allocations were made, with final adoption contingent upon the presentation and approval of Specific Plans and Development Agreements for the subject properties. The necessary documents for development of the Northeast Plan area have been adopted, and development of that Plan area is underway. In August 1986, a Notice of Preparation (NOP) for development of a Northwest Roseville Specific Plan was circulated, followed closely in September by an NOP for the North Central Roseville Specific Plan.

Simultaneous preparation of the Northwest and North Central Specific Plans provided the impetus for combining the environmental review into a single EIR document, the North Roseville Specific Plans Draft Environmental Impact Report, which was circulated in August 1987. Following public circulation and review by state agencies, the Draft EIR was reviewed by the Roseville Project Review Commission (PRC), and subsequently, by the Roseville Planning Commission. Changes in landowners within the respective Plan areas, as well as continuing modifications of the proposed Specific Plans, resulted in a decision to process the Plans separately as originally intended. A Specific Plan and accompanying Environmental Impact Report have been adopted and certified for the Northwest Roseville Specific Plan. This project, the North Central Roseville Specific Plan (NCRSP), proposes development of the last of the three Plan areas reviewed for development by the City Council in November 1985. The NOP for this project was circulated for review from May 25 through June 27, 1988. The North Central Roseville Specific Plan and accompanying land use maps provide the basic information upon which this Environmental Impact Report is based. For reference, the Proponent Draft North Central Roseville Specific Plan is appended to this report.

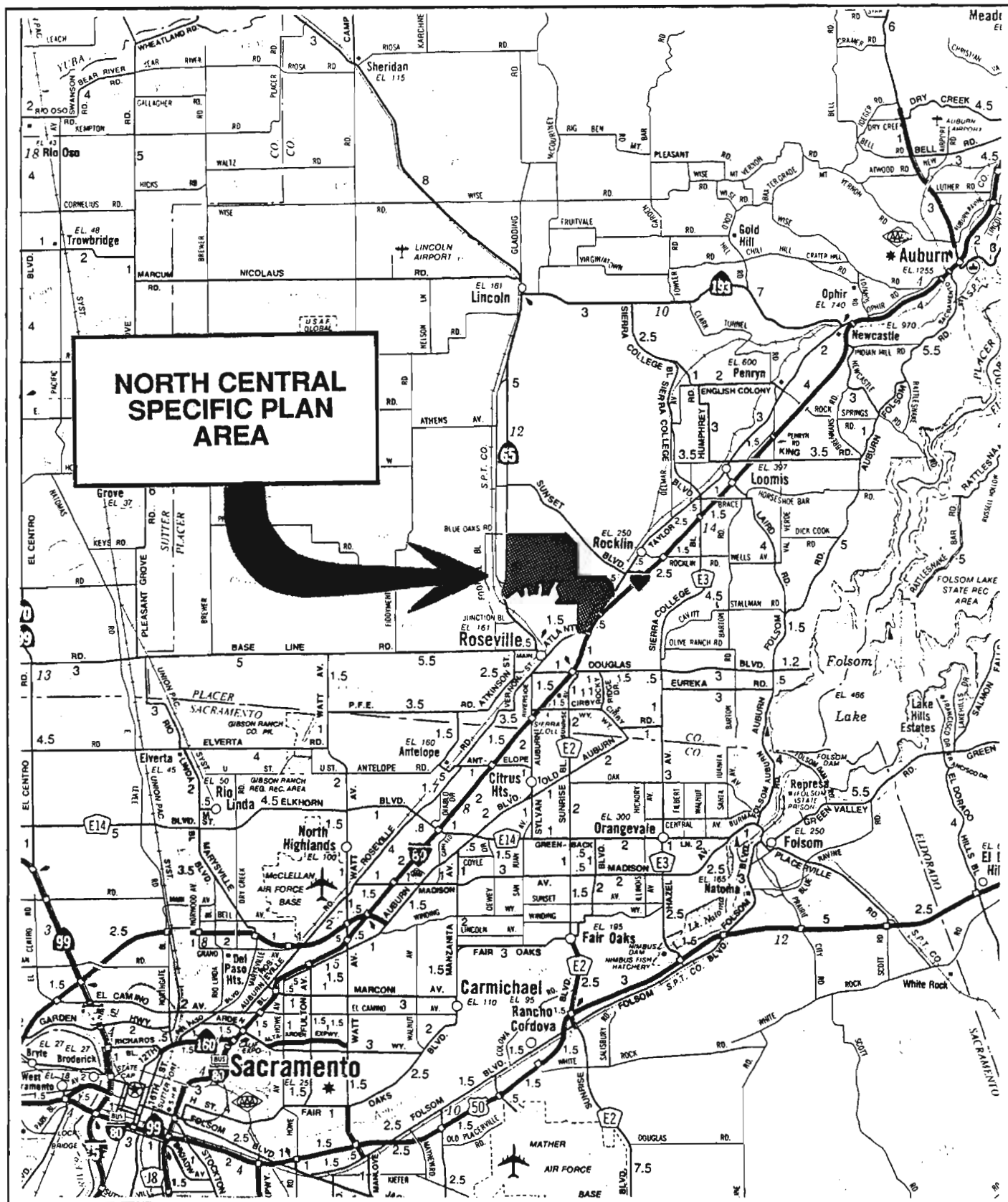
The North Central Roseville Specific Plan includes property owned by several parties. Consequently, the proposed Specific Plan is the end product of a coordinated effort between the various landowners and the City of Roseville. Property owners in the Plan area have been participating in the development of the Plan.

1.2 Project Location

The City of Roseville is located in the Central Valley of northern California. As shown in Figure 1-1, the City of Roseville is located along Interstate 80 approximately midway between the cities of Sacramento and Auburn. Interstate 80 provides a regional link between Roseville and San Francisco or the Lake Tahoe region.

Regional Location Map

Figure 1-1



As depicted in Figure 1-2, the North Central Roseville Specific Plan area is located north of downtown Roseville, spanning the area between Interstate 80 and Washington Boulevard. The southeastern corner of the Plan area is defined by the SPRR track which parallels Atlantic Street, Taylor Road, and I-80. The eastern side of the Plan area includes the Roseville/Rocklin corporate boundary, the Highway 65 Bypass, and the transportation corridor which accommodates the Southern Pacific Railroad (SPRR), Interstate 80, and Taylor Road. The northern limit of the Plan area is the City of Roseville corporate boundary. The area south of Sunset Boulevard but north of the Roseville corporate limit is within the unincorporated area of Placer County. This area is a "wedge" surrounded on three sides by incorporated areas in Rocklin and Roseville. The western boundary of the Plan area is formed by Washington Boulevard, beyond which is the Roseville North Industrial area and the Northwest Specific Plan.

1.3 Proposed Project

The NCRSP is proposed as the guide for development within the Plan area. The Proposed NCRSP is consistent with the Roseville General Plan, but provides a more detailed and coordinated plan for implementation of development and mitigation of potential environmental impacts. Individual development projects within the Plan area will be subject to the goals, policies, and guidelines established by the NCRSP.

The NCRSP consists of a proposal to develop the $\pm 2,315$ acre area to support residential, commercial, business-professional (B-P), and light industrial land uses.

The North Central Roseville Specific Plan proposes development of low to medium density residential housing in the southwesterly portion of the Plan area, blending to higher density residential, commercial and B-P uses to the northeast. Proposed development along the Highway 65 Bypass is limited to light industrial, B-P, and commercial land uses. The Specific Plan includes two potential locations for development of a regional mall. Table 1-1 presents the proposed land uses. Figure 1-3 illustrates the proposed land uses by parcel.

The Specific Plan does not address individual development proposals, so no particular schedule or cost information is available on a project-by-project basis. For regional planning and forecasting purposes, it has been assumed that approximately two-thirds of each Roseville Plan area will build out by the year 2005.

1.4 Required Approvals

Full implementation of the land uses described in the Specific Plan include the following approvals:

- ✱ EIR certification.
- ✱ Specific Plan approval.
- ✱ Development Agreements.

Vicinity Location Map

Figure 1-2

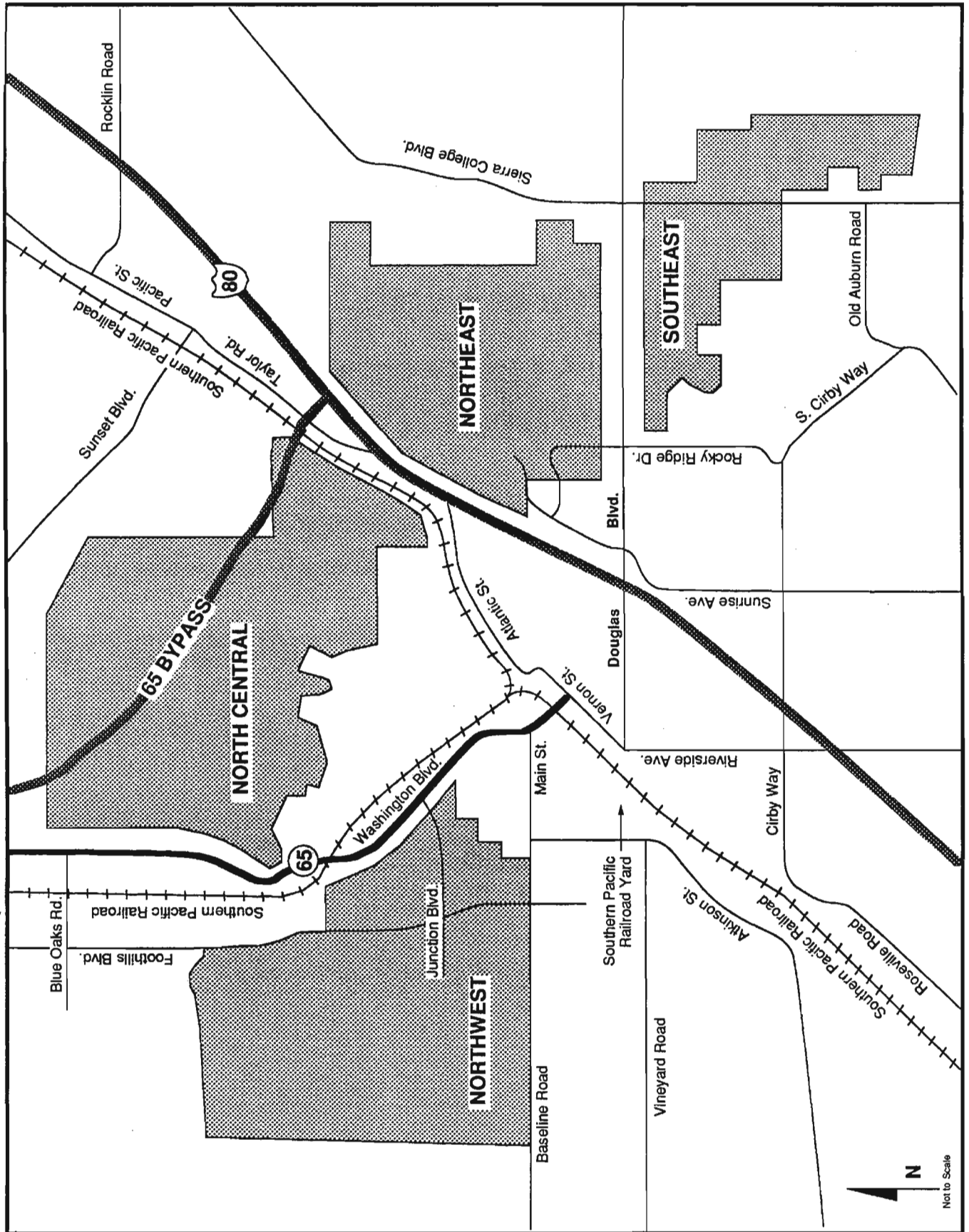


TABLE 1-1
NORTH CENTRAL SPECIFIC PLAN
PROPOSED LAND USES

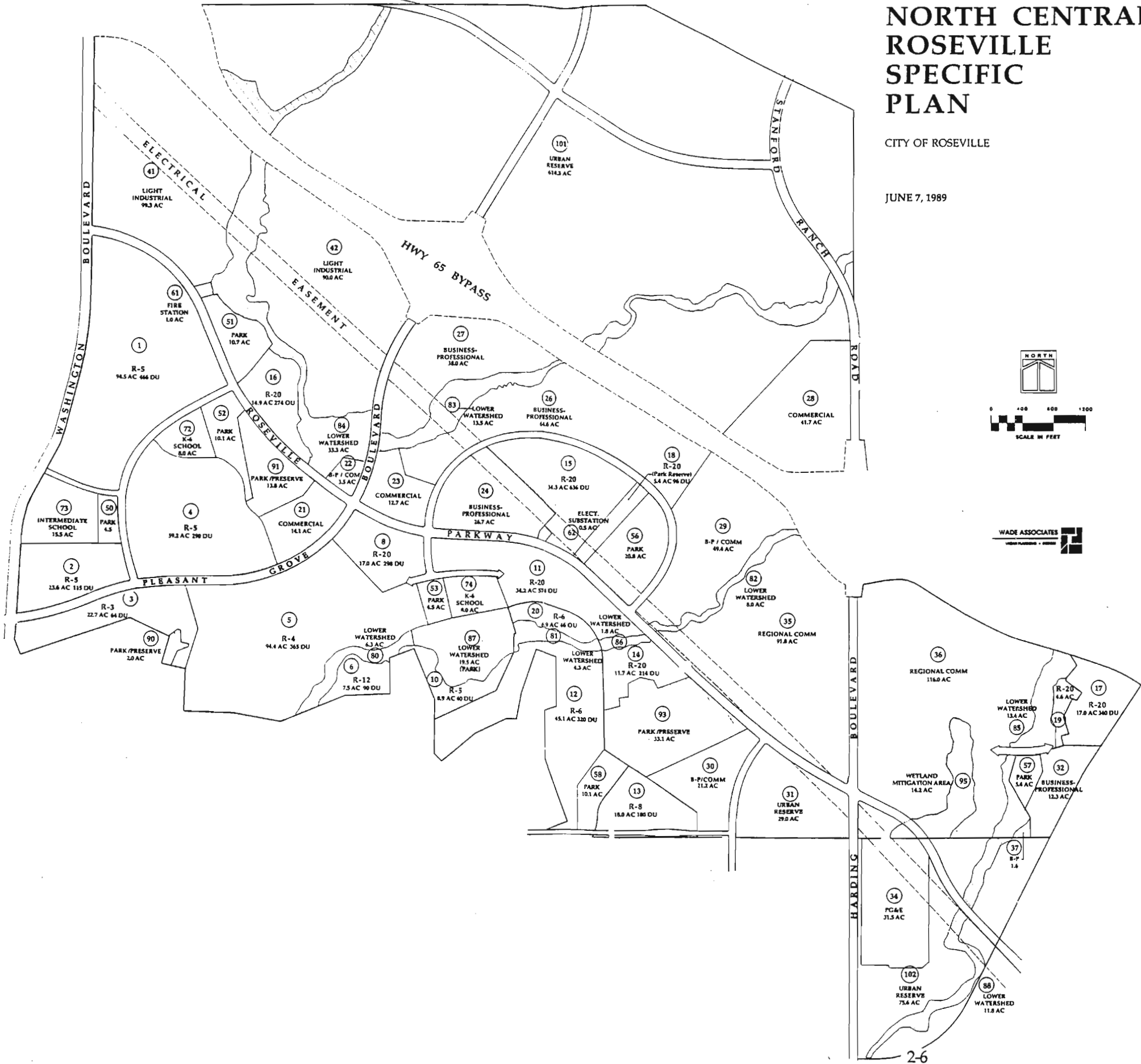
Type of Land Use	Units	Acres
Residential		
Low Density (R-0 to R-5)	1,340 du ¹	303.3
Medium Density (R-6 to R-10)	546 du	70.0
High Density (R-11 and above)	<u>2,522 du</u>	<u>146.6</u>
TOTAL	4,408 du	519.9
Business - Professional		143.2
Business - Professional, Commercial		74.1
Commercial		68.5
Regional Commercial		207.8
Light Industrial		189.3
Open Space		
Lower Watershed		111.9
Park Preserve		48.9
Parks		66.1
Wetland Mitigation		14.2
Schools		
K-6		16.0
Intermediate		15.5
Right of Way (ROW)		87.9
Fire Station		1.0
Electrical Substation		0.5
PG&E		31.5
Urban Reserve		<u>718.9</u>
TOTAL		2,315.2

¹ du = dwelling unit

NORTH CENTRAL ROSEVILLE SPECIFIC PLAN

CITY OF ROSEVILLE

JUNE 7, 1989



Land Use Map

- ⌘ Final Subdivision Map approval for the major parcels into which the Plan area is to be subdivided.
- ⌘ Approval of zoning consistent with Specific Plan land uses.
- ⌘ Granting of use permits for individual projects.
- ⌘ Approval of tentative and final maps for individual projects.
- ⌘ Building permits for all structures within the Plan area.
- ⌘ Stream Alteration Agreements from the California Department of Fish and Game may be required for individual projects which could affect streambeds within the Plan area.
- ⌘ Potential requirements for U.S. Army Corps of Engineers permits under Section 404 of the Clean Water Act.

1.5 Offsite Facilities

Implementation of the NCRSP will require the construction of a number of water and sewer lines outside of the Plan area. These will connect Plan area services to existing or planned facilities and include:

- ⌘ A 24-inch diameter water line to be constructed in the right-of-way along Blue Oaks Road, from the Plan area boundary to an existing line adjacent to the SP Railroad line.
- ⌘ A 15-inch sewer line to connect NCRSP area service to an existing sewer line adjacent to Washington Boulevard north of the NCRSP.
- ⌘ A 24-inch water line south along Harding Boulevard
- ⌘ A 36-inch water line to be constructed from the southwest NCRSP area boundary to the proposed right-of-way for the Taylor Road connector
- ⌘ A 24- or 30-inch diameter sewer trunk line extension to be constructed along South Branch Pleasant Grove Creek from the Plan area boundary to an existing lift station approximately two miles west of the Plan area.
- ⌘ A 12-inch sewer line south of the NCRSP and west of Harding Boulevard.

All construction of these facilities, with the exception of the South Branch sewer extension, will occur within developed right-of-ways or right-of-ways planned for development.

South Branch Pleasant Grove Creek Sewer Trunk Extension

The proposed route for the offsite portion of the South Branch Pleasant Grove Creek Sewer Trunk Extension would run from the southern boundary of the North Central Roseville Specific Plan area, along South Branch Pleasant Grove Creek (South Branch) to the existing lift station which is located near the confluence of South Branch with Pleasant Grove Creek (see Figure 1-4). As can be seen in the figure, the route would be located primarily in the Northwest Specific Plan Area. A portion of the route, however, will cross through Diamond Oaks subdivision and golf course. For approximately 3,000 feet of the route, the proposed line will parallel an existing sewer line which runs from Foothill Boulevard to the above mentioned lift station (see Figure 1-4). Another existing sewer line and lift station, shown in the southeast portion of the project area, will be removed as part of the new pipeline project, as will about 1,800 feet of the existing sewer line west of Foothill Boulevard.

The new trunk line will be designed to service that portion of the southern NCRSP area which is within the Dry Creek Sewer Assessment District and the South Branch watershed. The line will consist of approximately 2.2 miles (11,750 feet) of 24 to 30 inch diameter pipe and will carry sewage to the lift station west of Foothills Boulevard for transport to the City's sewage treatment plant on Dry Creek. A permanent City easement will be created along the length of the line.

The predominant vegetation along South Branch and the proposed pipeline route is an integrated complex of blue oak woodland and interior live oak forest. South Branch Pleasant Grove Creek is classified as an intermittent stream which means that it carries no flow during part of the year. Due to the intermittent nature of flows in South Branch, riparian vegetation such as willow, cottonwood, himalaya berry, and emergent vegetation are very limited, particularly west of Diamond Oaks Drive. Areas along the pipeline route, including stream crossings predominantly consist of annual grasses.

South Branch Pleasant Grove Creek supports no anadromous or coldwater fisheries. The creek's ability to support warmwater fish is also limited due to low or nonexistent summer flows, as well as the limited availability of instream vegetation for cover, reproductive habitat and food production.

Proposed Construction Activities

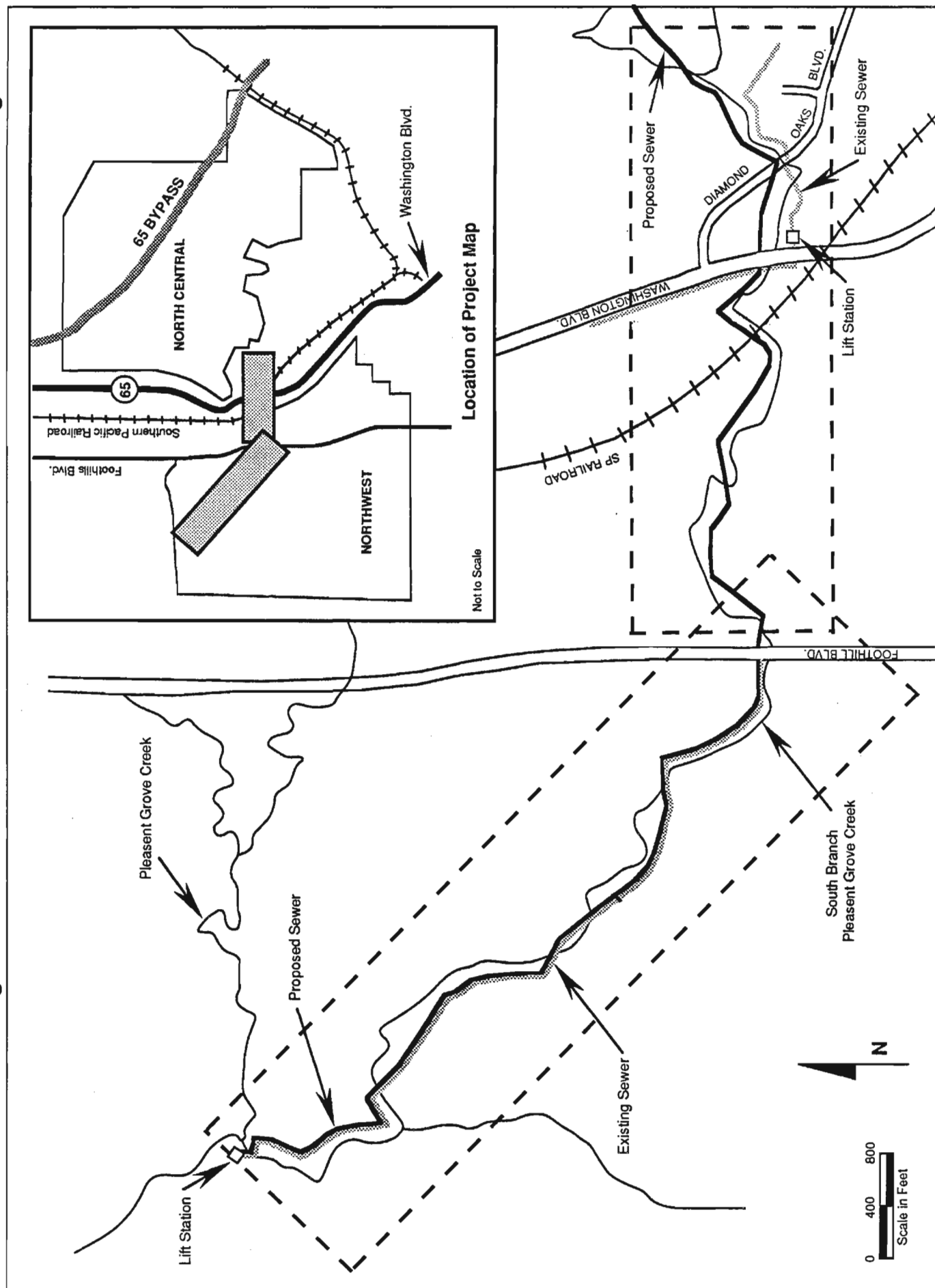
Installation of the proposed sewer trunk extension will involve the following construction activities:

- ✱ Development of construction access roads
- ✱ Construction of temporary stream crossings/coffer dams
- ✱ Temporary interruption of flow

- ⌘ Use of heavy equipment for excavation of trenches along the stream
- ⌘ Trenching excavations within the stream channel at 14 proposed stream crossing locations
- ⌘ Use of trucks and tractor/trailers for deliveries of pipe, gravel, and concrete.

Offsite Sewer Trunk Alignment

Figure 1-4



SUMMARY

2. SUMMARY OF ENVIRONMENTAL EFFECTS

INTRODUCTION

This summary has been prepared to give the reader an overview of the analysis contained in Chapter 3, Environmental Setting, Impacts, and Mitigation Measures. CEQA requires that a summary also include discussions of areas of controversy, significant impacts, impacts which will be significant even with mitigation, secondary impacts, implementation of mitigation measures, and alternatives to the project.

The area encompassed by the North Central Roseville Specific Plan includes $\pm 2,315$ acres. The Specific Plan outlines development of this area to include ± 547 acres of business professional and/or commercial land use; ± 195 acres of light industrial land use; ± 201 acres of parks, preserves, and floodway land use; ± 526 acres of residential land use; ± 141 acres of arterial roadways, schools, public facilities, etc.; and ± 702 acres designated as urban reserve.

The North Central Specific Plan includes property owned by several parties. Consequently, the proposed Specific Plan is the end product of a coordinated effort between the various landowners and the City of Roseville. Present owners of property within the Plan area include Roseville 150 Center, RMB Realty Inc., CD Community Properties, Leonard and William Ostrow, Jack Pickart, PG&E, and the City of Roseville.

The City of Roseville is the Lead Agency for the Specific Plan. No Responsible Agencies have been designated by the City.

Areas of Controversy

The areas of controversy surrounding the project which have been raised either by members of the community or representatives of various agencies include: the loss of onsite wetlands, specifically vernal pools; the possibility of siltation in Antelope Creek; water quality degradation as a result of urban runoff; flooding potential; loss of rural character for urban development; and continued degradation of air quality in the region.

Significant Impacts

Buildout of the project has the potential to generate potentially significant impacts in a number of areas. Natural resources affected include the geologic, hydrologic, and biologic systems located within the Plan area. Community resources affected include transportation facilities located both offsite and onsite, and visual resources.

Impacts for the following issues would be significant without mitigation, but could be reduced to a less-than-significant level if mitigation measures recommended in this report were adopted: geology; hydrology; biologic resources; cultural resources; land use; water supply; wastewater; public services; noise; population, employment, and housing; and hazardous materials.

A list of significant impacts which would result from project development and proposed mitigation measures that would reduce or avoid the effect can be found in the Summary Table, Table 2-1.

Unavoidable Significant Impacts

With implementation of all available mitigation measures, impacts will remain significant in the following areas: disruption of vernal pools, visual quality, generation of population increase, traffic, air quality, and contribution to cumulative lack of affordable housing.

Secondary Impacts

Secondary impacts are those impacts and effects generated by the people and employees who live and/or work in the project site. These people represent the growth-inducing effects of development of the Plan area and the attendant increased demand for commercial goods and services.

Implementation of Mitigation Measures

The mitigation measures that have been identified are, in the aggregate, rather complex. This EIR discusses several kinds of mitigation measures, including infrastructure improvements, management practices, monitoring programs, development constraints, and siting criteria. In addition, a variety of measures, each mitigating a different impact, may apply to one area of the site.

If measures are to be systematically employed, all persons who engage in activities that may impact the site (e.g., architects, construction workers, residents, etc.) must be informed of the full complement of mitigation measures that apply to the site. Given these factors, it is suggested that an individual be designated to assume the responsibility for overseeing the implementation, coordination, and monitoring of those mitigation measures adopted by the City in connection with their action on the proposed project. Recent legislation (Public Resources Code 15122(b)) requires that mitigations be monitored to ensure their proper implementation.

Alternatives to the Project

The alternatives to the project which were analyzed in this report include: the no project option; offsite development of the NCRSP; offsite development of portions of the Specific Plan; and development of different land uses within the Specific Plan.

Summary Table

All impacts that were identified during the course of this environmental analysis are itemized in Table 2-1. The level of significance of these impacts is presented, both with and without mitigation measures. The mitigated level of impact implies that all mitigations should be implemented unless otherwise indicated in this summary or text. Unless otherwise noted, the implementation of identified mitigation measures will reduce the impact to a less-than-significant level. Adverse impacts that are unavoidable and which cannot be mitigated to a less-than-significant level are noted. Mitigation measures which are contained in the Specific Plan are denoted with an asterisk (*). This summary should be used in conjunction with a thorough reading of the report in order to have the full description of impacts and mitigation measures. The summary is intended as an overview; the report serves as the basis for this summary.

Table Format

Table 2-1 has been organized in columns: 1) topical area such as geology, vegetation and wildlife, cultural, etc.; 2) the impacts; 3) the level of significance of the impact prior to implementation of the recommended mitigation measures; 4) the recommended mitigation measures; 5) the level of significance of the impact after implementation of the recommended mitigation measures and the agency or individual responsible for implementing the mitigation measures.

TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
GEOLOGY, SEISMICITY, AND SOILS				
Location of project in an area subject to soil constraints	PS	3.2-1 *Special landscaping design considerations are identified in the NCRSP for areas underlain by Mehrten, and	LS ¹	
Construction in areas of soils with low ripability	LS	3.2-2. Utilize accepted engineering and construction techniques to compensate for all of the soil constraints identified within the Plan area. 3.2-3 *None identified. 3.2-4 None required.	LS	D, C
Generation of increased erosion resulting from construction of the offsite sewer trunk extension along South Branch Pleasant Grove Creek	PS	3.2-5 *Implement guidelines identified in Section 6.3 of Specific Plan, and 3.2-6 All areas disturbed by the pipeline installation would have to be completely revegetated at the completion of construction.	LS ¹	CR, C, DFG
Generation of increased erosion	PS	3.2-7 *Implement soil protection guidelines outlined in Section 6.3.1 of the Specific Plan, and 3.2-8 Specific requirements designed to reduce erosion will be determined on a project-by- project basis and will be included as conditions of approval on tentative maps.	LS ¹	CR
Preemption of mining resources	LS	3.2-9 *None identified. 3.2-10 None required.	LS	
Location of project in an area subject to seismic groundshaking	PS	3.2-11 *None identified. 3.2-12 Adhere to the Uniform Building Code and City of Roseville building standards.	LS	CR
C = Contractor D = Developer O = Project Occupants S = Significant CR = City of Roseville FD = Fire Department LS = Less than Significant NA = Not Applicable PD = Police Department PS = Potentially Significant SB = Significant SD = School District SU = Significant COE = US Army Corps of Engineers DFG = Dept. of Fish and Game CRED = City of Roseville Engineering Dept. CRPD = City of Roseville Planning Dept. CRPW = City of Roseville Public Works PG&E = Pacific Gas & Electric CRP&R = City of Roseville Parks & Recreation Placer APCD = Placer Air Pollution Control Dist. *Mitigation measure contained in the Specific Plan *All mitigation measures are necessary to reach this level of significance				

TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
HYDROLOGY AND WATER QUALITY				
Increase in stormwater runoff	PS	3.3-1 *Implement the Master Drainage Plan which is currently being prepared for the Plan area, and 3.3-2 *Dedicate all areas within lower watershed (parcel nos. 80 through 88) to the City of Roseville, and 3.3-3 Review of all drainage facilities designs by the Public Works Department prior to approval of individual projects	LS ¹	
Loss of groundwater recharge opportunity	LS	3.3-4 *None identified. 3.3-5 None required.	LS	CR
Short-term degradation of surface water quality associated with project construction	PS	3.3-6 *Adhere to policies presented in Section 6.3 of the Specific Plan, Soil Protection. 3.3-7 None required.	LS	
Long-term degradation of surface water quality associated with the urban runoff from the Plan area	S	3.3-8 *Adhere to policies presented in Section 6.4.1 of the Specific Plan, and 3.3-9 Incorporate Best Management Practices (BMP) into the design of drainage systems for individual projects within the Plan area, and 3.3-10 Monitor the effectiveness of proposed pollution control measures.	LS ¹	D, CR
Short-term degradation of surface water quality in South Branch Pleasant Grove Creek resulting from the installation of the proposed offsite sewer trunk extension	S	3.3-11 *None identified. 3.3-12 Comply with all DFG streambed alteration permit requirements, and 3.3-13 Implement preventive measures to minimize construction-related erosion impacts if construction period exceeds one year.	LS ¹	CR, DFG
				CR, DFG
C = Contractor D = Developer O = Project Occupants S = Significant CR = City of Roseville FD = Fire Department LS = Less than Significant NA = Not Applicable PD = Police Department PS = Potentially Significant SB = Significant Beneficial SD = School District SU = Significant Unavoidable Impact COE = US Army Corps of Engineers DFG = Dept. of Fish and Game CRED = City of Roseville Engineering Dept. CRPD = City of Roseville Planning Dept. CRPW = City of Roseville Public Works PG&E = Pacific Gas & Electric CRP&R = City of Roseville Parks & Recreation				
			Placer APCD = Placer Air Pollution Control Dist. * Mitigation measure contained in the Specific Plan ¹ All mitigation measures are necessary to reach this level of significance	

TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
Potential water quality degradation resulting from a failure of completed sewer line and release of sewage into South Branch Pleasant Grove Creek	LS	3.3-14 *None identified. 3.3-15 None required.	LS	
VEGETATION AND WILDLIFE				
Elimination or degradation of annual grassland habitat	LS	3.4-1 *None identified. 3.4-2 None required.	LS	
Potential disturbance of oak woodland in southeast portion of the Plan area	S	3.4-3 *Adhere to Specific Plan oak woodland policy 6.2.1, policies 1-20, and 3.4-4 Removal of trees on the project site, as well as protection and preservation of remaining trees, will be accomplished in strict accordance with all provisions of the Draft Roseville Tree Preservation Ordinance as approved by the Roseville Planning Commission or any such ordinance as enacted (see Appendix J), and 3.4-5 Delineate and fence areas to be avoided within oak woodland and designated access corridors to these areas.	LS ¹	CR, D
Disruption of riparian area/vegetation	S	3.4-6 *Implement policy 6.2.1.19 of the Specific Plan concerning conducting a spring raptor survey prior to any tree removal onsite, and 3.4-7 Prohibit construction within 100 feet, or other distances as determined by City staff to protect creek environment, of the banks of Antelope Creek, and	LS ¹	D, C DFG, CR, D
C = Contractor D = Developer O = Project Occupants S = Significant CR = City of Roseville FD = Fire Department LS = Less than Significant NA = Not Applicable PD = Police Department PS = Potentially Significant SB = Significant Beneficial SD = School District SU = Significant Unavoidable Impact COE = US Army Corps of Engineers DFG = Dept. of Fish and Game CRED = City of Roseville Engineering Dept. CRPD = City of Roseville Planning Dept. CRPW = City of Roseville Public Works PG&E = Pacific Gas & Electric CRP&R = City of Roseville Parks & Recreation Placer APCD = Placer Air Pollution Control Dist. *Mitigation measure contained in the Specific Plan ¹ All mitigation measures are necessary to reach this level of significance				

TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
Potential disturbance to Antelope Creek fish habitat	3.4-8	Minimize construction of stream crossings on Antelope Creek to provide reasonable access to developed areas west and east of the creek, and		DFG, CR
	3.4-9	Prohibit construction access roads to cross Antelope Creek, except as necessary to accommodate construction of proposed stream overcrossing(s).		DFG
	3.4-10	*None identified.	S	
	3.4-11	Implement mitigation measures presented in the Geology section of the EIR, and	LS ¹	See Geology Section
	3.4-12	Restrict all grading, site preparation, and construction work in or on the banks of Antelope Creek to the period of June 1 through September 30, and		DFG, CR, D
	3.4-13	Prohibit heavy equipment in live streams, and		DFG, CR, C
	3.4-14	Construct coffer-dams (generally of geo-textile material, sandbanks, and culverts), and		DFG, CR, C
	3.4-15	Employ proper construction methods for stream crossing including an initial layer (approximately 18 inches) of clean gravel to allow for a clean removal of the crossing at the conclusion of construction, and		DFG, CR, C
	3.4-16	Hydroseed areas adjacent to the finished roadbed which were disturbed during construction to promote revegetation and reduce erosion potential, and		CR, C
	3.4-17	Photograph streambed and bank contours prior to the start of stream overcrossing and Coffey Dam construction, and		DFG, CR, C
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TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
Disruption of intermittent drainages and associated seasonal wetlands	3.4-18	Set aside topsoil for later use in revegetation and recontouring efforts during grading prior to road construction.		CR, C
	3.4-19	*Implement the protection and preservation measures discussed in Section 6.1 of the Specific Plan.	LS	
	3.4-20	There are no additional mitigation measures recommended by the EIR.		
Loss or disruption of vernal pool resources	3.4-21	*Implement policies identified in 6.1.3 Wetlands Avoidance and Preservation, policies 1-7 and 6.1.6 Vernal Pool Preserve Policies, policies 1-5, and	LS ¹	
	3.4-22	Implement fully the 404 permit requirements which will be determined by state and federal agencies to be adequate and sufficient mitigation measures, thus compensating for the anticipated loss of vernal pools from proposed development. No net loss of wetland will be accepted, and		COE, D
Loss or disruption of state-listed endangered plant species	3.4-23	Implement both a short-term and long-term monitoring program to ensure the success of the agency-required mitigation measures, and		COE, D
	3.4-24	Consider off-site "mitigation banking" as an alternative to onsite mitigation measures to be used in the event that anticipated success rates for wetlands recreation and maintenance are not met.		COE, D
	3.4-25	*None identified.	LS ¹	
	3.4-26	Redesign the boundaries of the vernal pool preserve on parcel 95, and		COE, D
	3.4-27	Create new vernal pools within parcel 95 as a form of compensation, and		COE, D
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TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
Disturbance of riparian and stream channel habitat resulting from placement of the offsite sewer trunk extension along South Branch Pleasant Grove Creek	3.4-28	Conduct detailed and thorough investigations so that proposed stormwater drainage and detention facilities on parcels 36 and 95 are properly designed and sized.		COE, D
	3.4-29	*None identified.	LS ¹	
	3.4-30	Strict implementation of all conditions and requirements of the Section 1601-03 Streambed Alteration Agreement for the sewer line extension, and		DFG, CR, C
	3.4-31	Native oak trees within the project area which are not slated for removal will be protected per City ordinance, and		CR, C
	3.4-32	An oak revegetation plan for this project should be developed and implemented by a qualified and licensed landscape contractor for the trees removed, and		CR, D
	3.4-33	Oak trees removed as a result of project construction will be replaced on at least an "inch-for-inch" basis (referring to diameter), and		CR, D
	3.4-34	A spring raptor nest survey will be conducted by a qualified wildlife biologist before construction activities begin. If an active raptor nest is located in any tree slated for removal, that tree will not be removed until the young have fledged and the nest is determined (by the biologist) to be inactive, and		CR, D, C
	3.4-35	Access to and from areas of construction activity along the proposed sewer line will be restricted to designated access roads only.		CR, C
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TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
LAND USE				
Potential internal land use conflicts between light industrial and residential uses	PS	3.6-1 *Implement policies in Specific Plan Sections 3.4, 2.4, 2.5, 2.6, and 2.8 which relate to land use conflicts between residential and industrial land uses, and	LS ¹	
		3.6-2 Noise shall not exceed sixty (60) dBA Ldn for single-family areas, and		CR
		3.6-3 The use of toxic or hazardous materials requiring the filing of a business plan for emergency response per Section 25503.5 of the California Health and Safety Code shall be critically analyzed when considering any use, and		CR
		3.6-4 Approval of conditional use permits for uses which require a business plan for emergency response shall require a full range of review, management techniques, and identification of disposal methods for hazardous materials.		CR
Potential impacts on parks located on the Roseville Parkway	PS	3.6-5 *Implement design standards identified in Specific Plan Section 7.5, and	LS ¹	
		3.6-6 Ensure access to the park on parcel 52 from the residential area to the south other than Roseville Parkway, and		CR, D
		3.6-7 Ensure that park facilities constructed on parcel 51 are located at the north side of the parcel or that a landscaped berm is constructed in the setback area to reduce noise.		CR, D
Potential impacts on residential areas proposed to be located adjacent to highways	S	3.6-8 *None identified.	LS	
		3.6-9 Explore alternatives to residential development on parcels 17 and 19 and conduct additional noise analyses onsite.		CR
Continued deterioration of the downtown commercial and business community	LS	3.6-10 *None identified.	LS	
C = Contractor D = Developer O = Project Occupants S = Significant CR = City of Roseville FD = Fire Department LS = Less than Significant NA = Not Applicable PD = Police Department PS = Potentially Significant				
SB = Significant Beneficial SD = School District SU = Significant Unavoidable Impact COE = US Army Corps of Engineers DFG = Dept. of Fish and Game CRED = City of Roseville Engineering Dept. CRPD = City of Roseville Planning Dept. CRPW = City of Roseville Public Works PG&E = Pacific Gas & Electric CRP&R = City of Roseville Parks & Recreation				
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TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
Significant change in land use development under the Specific Plan will result in a change in the character of the area from open space and agricultural uses to urban uses	3.6-11	None required.		NA
	3.6-12	*None identified.	SU	
	3.6-13	None available.		
TRAFFIC				
Generation of increased traffic volumes under Scenario 1	3.7-1	*Participate in traffic mitigation fee ordinance adopted by the City of Roseville, and	LS ¹	
	3.7-2	*Construct arterial and collector roadways within the NCRSP, and		
	3.7-3	*Comply with the Roseville Rideshare Ordinance, and		
	3.7-4	*Develop a bicycle/pedestrian pathway system within the NCRSP, and		
	3.7-5	*Develop a park-and-ride lot system, and		
	3.7-6	*Develop infrastructure to facilitate expansion of bus service, and		
	3.7-7	*Monitor traffic conditions, and		
	3.7-8	Promote extension of Light Rail, and		CR
	3.7-9	Widen Highway 65 Bypass between Pleasant Grove Boulevard and Interstate 80, and		Caltrans
	3.7-10	Widen Interstate 80 between Highway 65 Bypass and south of Douglas Boulevard, and		Caltrans
	3.7-11	Construct new interchanges on the Highway 65 Bypass, and		Caltrans
C = Contractor D = Developer O = Project Occupants S = Significant CR = City of Roseville				
FD = Fire Department LS = Less than Significant NA = Not Applicable PD = Police Department PS = Potentially Significant				
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TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
Incremental contribution to cumulative increase in traffic volumes described under Scenario 2	3.7-12	No mitigations necessary, if roadways are constructed as currently planned, and		CR
	3.7-13	Construct at grade and grade separated improvements and implement TSM.		
	3.7-14	*Participate in traffic mitigation fee ordinance adopted by the City of Roseville, and	LS ¹	
	3.7-15	*Construct arterial and collector roadways within the NCRSP, and		
	3.7-16	*Comply with the Roseville Rideshare Ordinance, and		
	3.7-17	*Develop a bicycle/pedestrian pathway system within the NCRSP, and		
	3.7-18	*Develop a park-and-ride lot system, and		
	3.7-19	*Develop infrastructure to facilitate expansion of bus service, and		
	3.7-20	*Monitor traffic conditions, and		
	3.7-21	Promote extension of Light Rail, and		
	3.7-22	Widen Interstate 80 between Highway 65 Bypass and south of Douglas Boulevard, and		
	3.7-23	Widen 65 Bypass between Pleasant Grove Boulevard and Interstate 80, and		
	3.7-24	Construct new interchanges on the Highway 65 Bypass, and		
	3.7-25	No mitigations necessary if roads expanded as planned, and		

C = Contractor
 D = Developer
 O = Project Occupants
 S = Significant
 CR = City of Roseville

FD = Fire Department
 LS = Less than Significant
 NA = Not Applicable
 PD = Police Department
 PS = Potentially Significant

SB = Significant Beneficial
 SD = School District
 SU = Significant Unavoidable Impact
 COE = US Army Corps of Engineers
 DFG = Dept. of Fish and Game

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 *Mitigation measure contained in the Specific Plan
 *All mitigation measures are necessary to reach this level of significance

89046

TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
CLIMATE AND AIR QUALITY				
Decreased air quality as a result of construction-related activities	3.7-26	Improve roadways (at grade improvements, grade separated improvements, and peak hour turning prohibitions) and implement TSM.		CR
	3.8-1	*Implement measures identified in Specific Plan relating to construction activities such as dust control, site watering, restrictions on truck transport, etc.	LS	
	3.8-2	No additional mitigation measures required.		
	3.8-3	*Implement policies identified in Specific Plan which address compliance with agency policies, including TSM, and	SU ¹	
Decreased regional air quality	3.8-4	Implement development of planned bicycle pathways in NCRSP, and		CRPD, CRP&R
	3.8-5	Improve overall traffic flow, and		CRPD, CRPW
	3.8-6	Participate in state and local air quality programs.		CRPD, CRPW
NOISE				
Temporary increase in noise levels due to project construction	3.9-1	*None identified.	LS ¹	
	3.9-2	Use mufflers, enclosure panels, or other noise suppression attachments on all equipment as appropriate and turn off equipment when not in use, and		D, C
	3.9-3	Limit construction to daytime hours, and		CRPD, CRPW
C = Contractor D = Developer O = Project Occupants S = Significant CR = City of Roseville FD = Fire Department LS = Less than Significant NA = Not Applicable PD = Police Department PS = Potentially Significant SB = Significant Beneficial SD = School District SU = Significant Unavoidable Impact COE = US Army Corps of Engineers DFG = Dept. of Fish and Game CRED = City of Roseville Engineering Dept. CRPD = City of Roseville Planning Dept. CRPW = City of Roseville Public Works PG&E = Pacific Gas & Electric CRP&R = City of Roseville Parks & Recreation Placer APCD = Placer Air Pollution Control Dist. *Mitigation measure contained in the Specific Plan ¹All mitigation measures are necessary to reach this level of significance				

TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
Increase in ambient noise levels due to project area buildout	3.9-4	Perform any blasting in accordance with City-imposed conditions.		CRPW
	3.9-5	* Adhere to policies presented in the Specific Plan including building orientation, use of sound walls and berms, and establishing of performance conditions, and	LS ¹	
	3.9-6	Comply with City noise performance standards for non-residential land uses (light industrial), and		CRPD, CRED
	3.9-7	Provide berms for parks which may be subject to noise levels which exceed standards, and		CRPD
	3.9-8	Require additional noise analysis to refine appropriate mitigation measures for those land uses in which projected noise levels exceed standards with proposed mitigation.		CR
	3.9-9	Require setback of low-density residential development if other mitigation measures are not adequate.		CR
	3.9-10	Encourage construction techniques which reduce interior noise levels of individual residential units.		D, C
	3.10-1	* Adhere to policies identified in the Specific Plan.	LS ¹	
	3.10-2	Require a water conservation landscape program, and		CR
	3.10-3	Require that all new connections are metered.		CR
PUBLIC SERVICES	3.10-4	* Adhere to the policies identified in the Specific Plan, Section 7.12 for <u>all</u> public facilities, and	LS ¹	
Increased demand for domestic water	3.10-1	* Adhere to policies identified in the Specific Plan.	LS ¹	
	3.10-2	Require a water conservation landscape program, and		CR
	3.10-3	Require that all new connections are metered.		CR
	3.10-4	* Adhere to the policies identified in the Specific Plan, Section 7.12 for <u>all</u> public facilities, and	LS ¹	
Construction of additional infrastructure	3.10-1	* Adhere to policies identified in the Specific Plan.	LS ¹	
	3.10-2	Require a water conservation landscape program, and		CR
	3.10-3	Require that all new connections are metered.		CR
	3.10-4	* Adhere to the policies identified in the Specific Plan, Section 7.12 for <u>all</u> public facilities, and	LS ¹	
Placer APCD = Placer Air Pollution Control Dist. * Mitigation measure contained in the Specific Plan 1 All mitigation measures are necessary to reach this level of significance				

CR = Contractor
D = Developer
O = Project Occupants
S = Significant
CR = City of Roseville

FD = Fire Department
LS = Less than Significant
NA = Not Applicable
PD = Police Department
PS = Potentially Significant

SB = Significant Beneficial
SD = School District
SU = Significant Unavoidable Impact
COE = US Army Corps of Engineers
DFG = Dept. of Fish and Game

CRED = City of Roseville Engineering Dept.
CRPD = City of Roseville Planning Dept.
CRPW = City of Roseville Public Works
PG&E = Pacific Gas & Electric
CRP&R = City of Roseville Parks & Recreation

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TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
Generation of increased sewage volumes		3.10-5 *Adhere to standards specified in Section 3, Community Design Guidelines, and		
		3.10-6 *Develop a master plan for water distribution, and		
		3.10-7 *Formation of a Community Facility District is proposed as a funding mechanism for the installation of the water distribution system.		
		3.10-8 None required.		NA
Generation of increased sewage volumes	PS	3.10-9 *Street and other public infrastructure improvements required within the floodplain and riparian habitat shall be designed and sited to minimize the impact on the natural environment, and	LS ¹	
		3.10-10 Design and construct sewer collection facilities.		D, CR
	S	3.10-11 *None identified.	SU	
Increased population of school age children in impacted school districts		3.10-12 Encourage the development of private recycling programs for commercial, professional, office, and light industrial buildings wherever feasible.		O
	PS	3.10-13 *Adhere to policies identified in the Specific Plan.	LS ¹	
		3.10-14 Investigate specific funding mechanisms to finance construction of onsite school facilities, and		CR
Increased demand for parkland and facilities		3.10-15 Provide for a school site in the urban reserve area for a continuation high school.		CR
	PS	3.10-16 *Adhere to policies identified in the Specific Plan, and	LS ¹	
		3.10-17 *Dedication of park land by individual developers.		
		3.10-18 No additional measures are required.		NA
C = Contractor D = Developer O = Project Occupants S = Significant CR = City of Roseville				
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Placer APCD = Placer Air Pollution Control Dist. *Mitigation measure contained in the Specific Plan 1 All mitigation measures are necessary to reach this level of significance				

TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
Increased demand for law enforcement officers	PS	3.10-19 *None identified. 3.10-20 Encourage security features, and 3.10-21 Provide for early Police Department review of individual project plans, and 3.10-22 Implement "neighborhood watch" programs within the Specific Plan area.	LS ¹	D
Increased demand for fire protection and emergency services	PS	3.10-23 *None identified. 3.10-24 Provide for early review by the Fire Department.	LS	PD
Generate demand for additional library facilities	LS	3.10-25 *Adhere to policies identified in the Specific Plan in Section 7.12.2.	LS	FD
Increased demand for natural gas	PS	3.10-26 No additional mitigation measures are required. 3.10-27 *Adhere to policies identified in the Specific Plan in Section 6.6, and 3.10-28 Consider existing utility uses when determining zoning and approving projects in areas adjacent to existing PG&E facilities, and 3.10-29 Developers will be required to provide adequate easements for all utility facilities within their developments, and 3.10-30 Incorporate conservation measures into development designs.	LS ¹	CR
Increased demand for, and consumption of, electrical power	PS	3.10-31 *Adhere to policies identified in the Specific Plan in Section 7.12, and 3.10-32 Incorporate energy conservation measures into development design.	LS ¹	CR
				D, CR
				D, CR

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TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
Increased demand for telephone service	PS	3.10-33 *Adhere to policies identified in the Specific Plan in Section 7.12, and 3.10-34 Coordinate facility planning with the Roseville Telephone Company.	LS ¹	CRPD CRPW
ARCHAEOLOGY AND HISTORY				
Potential loss or damage to historical resources	PS	3.11-1 *Adhere to Policy 6.7.1, which suggests that projects incorporate portions of rock walls into landscape designs for parcels 84 and 93 where possible, based on evaluations completed during site design and review, and 3.11-2 Protect known prehistoric sites through capping or excavation unless further study at the time of application deems this unnecessary or inappropriate, and 3.11-3 In the event any historic surface or subsurface archaeological features or deposits are uncovered during construction, work in that immediate vicinity will halt immediately and a qualified archaeologist will be contacted for determination of resource significance.	LS ¹	CR, D CR, D
AESTHETICS AND VISUAL QUALITY				
Conversion of the Plan area from undeveloped rural landscape to urban development and interruption of long-range views	S	3.12-1 *None identified. 3.12-2 None available.	SU NA	
POPULATION, EMPLOYMENT, AND HOUSING				
Increase in population of approximately 9,034 people	S	3.13-1 *None identified. 3.13-2 There are no mitigation measures available.	SU NA	
C = Contractor D = Developer O = Project Occupants S = Significant CR = City of Roseville FD = Fire Department LS = Less than Significant NA = Not Applicable PD = Police Department PS = Potentially Significant SB = Significant Beneficial SD = School District SU = Significant Unavoidable Impact COE = US Army Corps of Engineers DFG = Dept. of Fish and Game CRED = City of Roseville Engineering Dept. CRPD = City of Roseville Planning Dept. CRPW = City of Roseville Public Works PG&E = Pacific Gas & Electric CRP&R = City of Roseville Parks & Recreation Placer APCD = Placer Air Pollution Control Dist. *Mitigation measure contained in the Specific Plan 1 All mitigation measures are necessary to reach this level of significance				

TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
Project impacts on affordable housing	PS	3.13-3 *Mitigation measures provided in the Specific Plan require 10% of the total housing stock in the North Central Roseville Specific Plan to be made available for participation in the affordable housing program.	LS	CR
Cumulative impacts on affordable housing	PS	3.13-4 No additional mitigation measures are recommended. 3.13-5 *None identified.		NA
Creation of approximately 16,992 jobs and effects on 8-mile commute shed jobs/housing balance	LS	3.13-6 There are no mitigation measures available. 3.13-7 *None identified.	SU	NA
Growth-inducing effects of jobs/housing ratio within the project	PS	3.13-8 None required. 3.13-9 *None identified.	LS	NA
FISCAL ANALYSIS		3.13-10 Convert some of land designated as employment generating to urban reserve.	LS	CR
Increased general fund revenues	LS	3.14-1 *None required.	LS	
Increased competition with downtown Roseville retailing operations	LS	3.14-2 None required. 3.14-3 *None identified. 3.14-4 None required.	LS	NA NA
C = Contractor D = Developer O = Project Occupants S = Significant CR = City of Roseville	FD = Fire Department LS = Less than Significant NA = Not Applicable PD = Police Department PS = Potentially Significant	SB = Significant Beneficial SD = School District SU = Significant Unavoidable Impact COE = US Army Corps of Engineers DFG = Dept. of Fish and Game	CRPD = City of Roseville Engineering Dept. CRPD = City of Roseville Planning Dept. CRPW = City of Roseville Public Works PG&E = Pacific Gas & Electric CRP&R = City of Roseville Parks & Recreation	Placer APCD = Placer Air Pollution Control Dist. *Mitigation measure contained in the Specific Plan † All mitigation measures are necessary to reach this level of significance

TABLE 2-1
SUMMARY OF ENVIRONMENTAL EFFECTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Level of Significance With Mitigation	Mitigation Implementation Responsibility
HAZARDOUS MATERIALS				
Potential for increased use and exposure to hazardous materials	PS	3.15-1 *None identified. 3.15-2 Comply with governing City regulations and ordinances, and 3.15-3 Designate truck routes on Roseville Parkway, Harding/Stanford Ranch Road, and Pleasant Grove within the Plan area to prevent transport of hazardous materials through residential neighborhoods.	LS ¹	O, FD CRPD FD, D
C = Contractor D = Developer O = Project Occupants S = Significant CR = City of Roseville FD = Fire Department LS = Less than Significant NA = Not Applicable PD = Police Department PS = Potentially Significant SB = Significant Beneficial SD = School District SU = Significant Unavoidable Impact COE = US Army Corps of Engineers DFG = Dept. of Fish and Game CRED = City of Roseville Engineering Dept. CRPD = City of Roseville Planning Dept. CRPW = City of Roseville Public Works PG&E = Pacific Gas & Electric CRP&R = City of Roseville Parks & Recreation Placer APCD = Placer Air Pollution Control Dist. *Mitigation measure contained in the Specific Plan All mitigation measures are necessary to reach this level of significance				

ENVIRONMENTAL SETTING

3. ENVIRONMENTAL ANALYSIS: SETTING, IMPACTS, AND MITIGATION MEASURES

INTRODUCTION

Topics Addressed

The following subsections discuss the environmental setting, impacts, and mitigation measures for each topic identified in the City's Initial Study as areas of potential impact. They include the following:

- ✕ Geology, Soils, and Seismicity
- ✕ Hydrology and Water Quality
- ✕ Vegetation and Wildlife
- ✕ General Plan Consistency
- ✕ Land Use
- ✕ Traffic
- ✕ Air Quality
- ✕ Noise
- ✕ Public Services
- ✕ Archaeology and History
- ✕ Aesthetics and Visual Quality
- ✕ Population, Employment, and Housing
- ✕ Fiscal Analysis
- ✕ Hazardous Materials

Section Format

The impact and mitigation portion of each section includes impact statements identified with grids (⌘). An explanation of each impact with an analysis of its significance follows each sentence or impact statement. All mitigation measures pertinent to each individual impact follow directly after the impact statement (see below). Mitigation measures are noted as being identified in the Specific Plan or recommended by the EIR. The degree of relief provided by identified mitigation measures is also evaluated. Identification of the agency or party responsible for implementing the mitigation measure follows each mitigation measure recommended by the EIR. The format is shown below:

⌘ **Statement of impact**

Discussion of impact in paragraph format

Statement of *level of significance of impact* included at the end of each impact discussion

Mitigation Measures

Implementation of Mitigation Measures __ through __ will reduce impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

Degree of relief resulting from implementing each measure stated

- *Recommended mitigation measure presented and numbered in consecutive order.*

Mitigation Measures Recommended by the EIR

- *Recommend mitigation measure presented and numbered in consecutive order. (Mitigation Implementation Responsibility: Agency or individual responsible for implementing mitigation is identified here)*

3.2 GEOLOGY, SEISMICITY, AND SOILS

SETTING

Geology

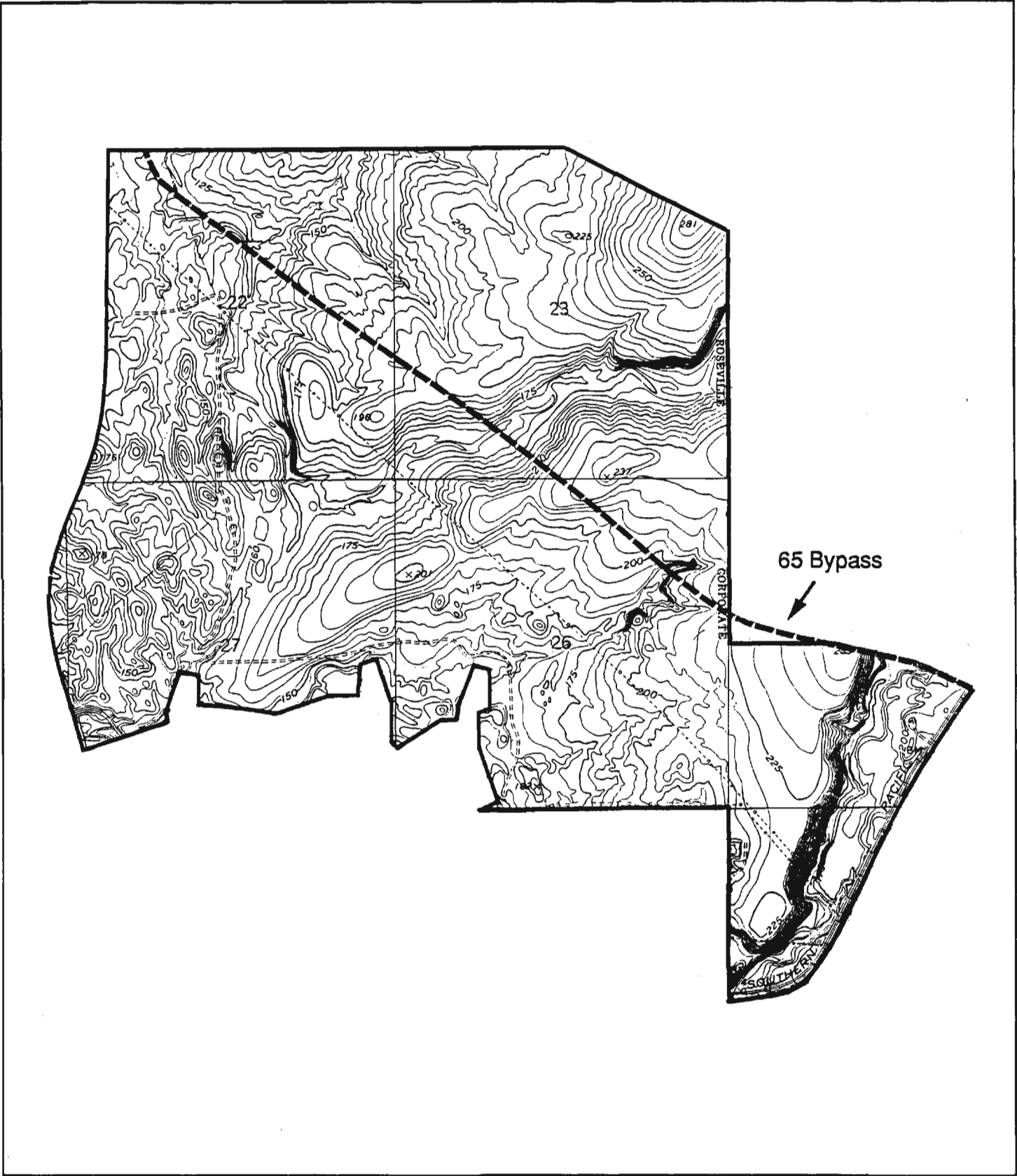
Topography

The topographic information presented in Figure 3.2-1 was obtained from the USGS 7.5 minute series, Roseville Quadrangle. As shown, the highest elevation in the Plan area is approximately 280 feet above mean sea level (msl), and is located near the Roseville/Rocklin city limits in the northeast corner of the Plan area. The lowest point is +120 feet msl, and is located in the portion of the Plan area where the tributary to Pleasant Grove Creek leaves the Plan area. With the exception of the Antelope Creek corridor, the terrain of the Plan area generally slopes to the west. The northeastern portion of the NCRSP area is characterized by numerous granitic outcroppings and a topography which is interrupted by relatively steep ravines and well-incised intermittent stream channels. The shaded portions in Figure 3.2-1 identify areas in which the slope exceeds 20 percent. Terrain becomes more level and flat in the western portion of the NCRSP area.

The Antelope Creek corridor is located in the southeast corner of the Plan area and is topographically separated from the balance of the area by a steep southeasterly oriented bluff. The drop from the ridge into the Antelope Creek corridor is roughly 50 feet, dropping from +225 feet msl to +175 feet msl.

Geologic History

The Sacramento Valley, the Sierra Nevada, and the Coast Ranges share a common origin, and consequently, are composed of the same geologic parent materials. The granitic plate which underlies northern California and western Nevada was at one time relatively flat. However, as a result of geologic processes, the plate was buckled and the outer edges were forced upward forming the Sierra Nevada and Coast Ranges. The present day Central Valley region represents the basin created between the upheaved plate edges. This valley extends from south of Bakersfield to north of Redding. The northern end of the valley is closed by the Klamath and southern Cascade Ranges including such notable volcanic formations as Mount Shasta and Lassen. The southern end of the valley is created by the merging of the Tehachapi Range of the Sierra with the southern Coast Ranges. The Carquinez Strait, which opens to the Pacific Coast, constitutes the only major gap in the surrounding mountains. Eroded material from the uplifted mountains was carried into the basin, forming the soils of the present day Sacramento Valley.



Areas where slope equals or exceeds 20 percent



Regional Geology

According to the Geologic Map of California, Sacramento Sheet, underlying material of the Central Valley is largely composed of alluvial deposits from the adjoining Sierra Range. Geology of the vicinity consists of transitional formations between the alluvial deposits of the valley and volcanic material characteristic of the Sierra Nevada. The Roseville area is underlain by relatively recent Plio-Pleistocene non-marine sedimentary deposits formed during the Cenozoic period.

The City of Roseville is situated in a transitional zone between the Central Valley and Sierra Nevada Foothills. The California Division of Mines and Geology identifies Arroyo Seco Gravel as the predominant geologic material generally occurring west of Roseville. This material, which underlies the western portion of the North Central Roseville Specific Plan area, is composed of compacted, nonandesitic sediments of silt, clay, and gravel. In contrast, the eastern portion of the North Central Plan area is underlain by the Mehrten formation. Aside from climate, Mehrten is probably the single most significant environmental factor responsible for shaping the character of the Plan area. The distribution of Mehrten beneath the Plan area is depicted in Figure 3.2-2.

Mehrten deposits occur in two principal forms, mudflow and conglomerate, both of which occur beneath the NCRSP area. Mehrten mudflow, or breccia, consists of tightly cemented ash and andesitic materials of volcanic origin. Where these flows solidified they formed impervious "caps" around which erosion occurred, and consequently, are generally found in upland areas between drainages. Mehrten conglomerate is classified as a sedimentary formation consisting of cobbles and aggregates cemented in an impervious medium of andesitic sands and silt.

Soils which overlie Mehrten deposits are typically shallow, dry, and provide extremely limited foundation for vegetative growth. Mehrten material does not extend to the western side of the Plan area where soils originating from alluvial deposition are predominant. The surface horizon is typically well drained, and varies in depth to an impervious clay hardpan.

Mineral Resources

The California Department of Mines and Geology (CDMG) is responsible under the California Surface Mining and Reclamation Act of 1975 (SMARA) for the classification and designation of areas which contain (or may contain) significant mineral resources. The purpose of the identification of these areas is to provide a context for land use decisions by local governments in which mineral resource availability is one of the pertinent factors being balanced along with other considerations.

The classifications used by CDMG to indicate potential significance of mineral resources are listed in Table 3.2-1. Of the five classifications listed in Table 3.2-1, only MRZ-1 and MRZ-3 occur within the NCRSP area (CDMG 1985). MRZ-3 areas occur along the southern boundary of the Plan area north and west of Diamond Oaks

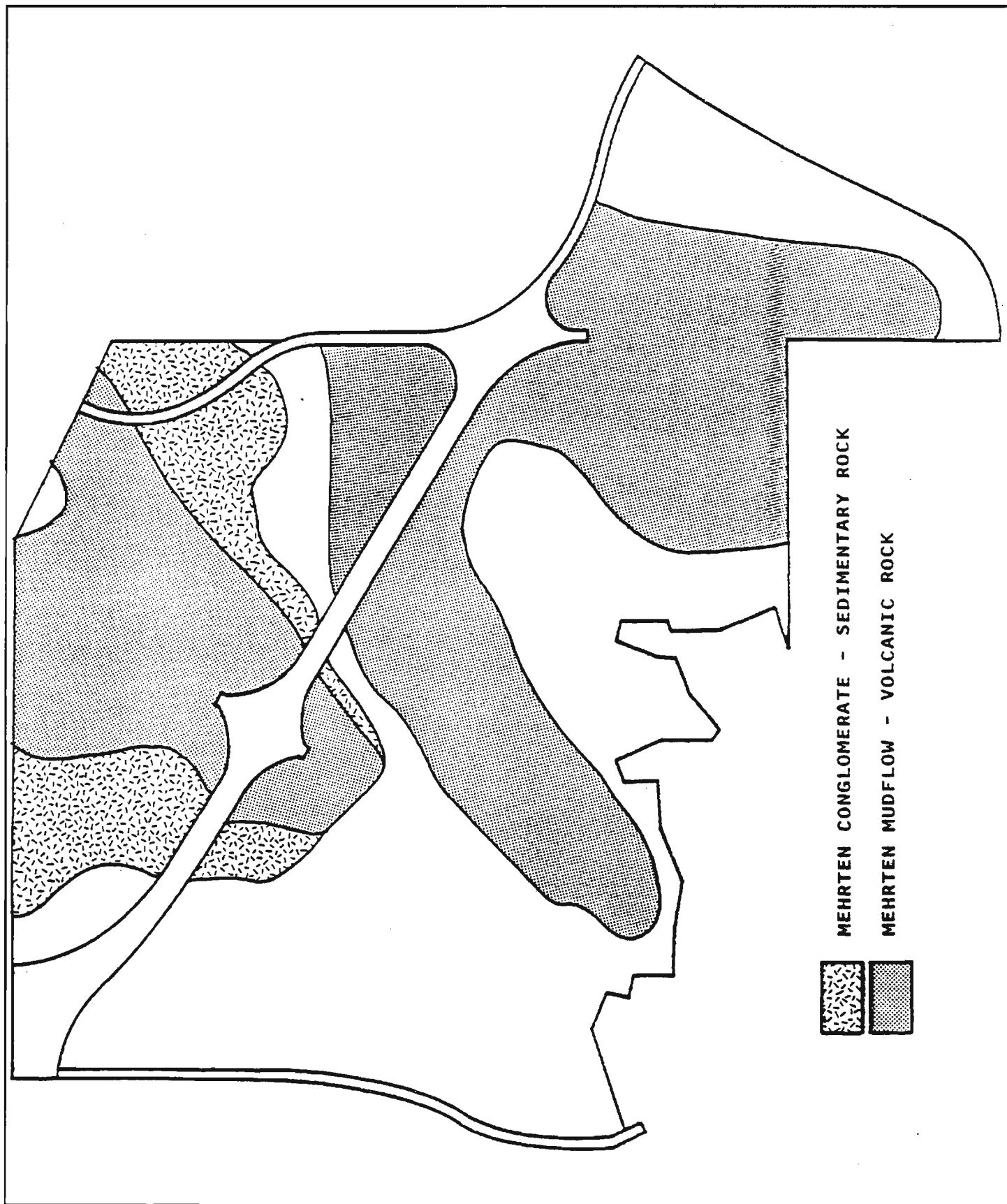


TABLE 3.2-1
DEFINITIONS OF MINERAL RESOURCE ZONES (MRZ)

MRZ-1	Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence. This zone shall be applied where well developed lines of reasoning, based upon economic geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is nil or slight.
MRZ-2	Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists. This zone shall be applied to known mineral deposits or where well developed lines of reasoning, based upon economic geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is high.
MRZ-3	Areas containing mineral deposits the significance of which cannot be evaluated from available data.
MRZ-4	Areas where available information is inadequate for assignment to any other MRZ zone.
SZ	Areas containing unique or rare occurrences of rocks, minerals or fossils that are of outstanding scientific significance shall be classified in this zone.

SOURCE: Mineral Resource Conservation Plan, a chapter of the Placer County Open Space & Conservation Plan, September 1984.

golf course. Nearly all lands east of Antelope Creek within the Plan area are classified MRZ-3. The remainder of the NCRSP area is classified MRZ-1, indicating that no significant mineral resources are likely to occur in these areas.

MRZ-3 areas in the Plan area contain aggregate deposits, the significance of which cannot be evaluated from existing data. Under Section 2762(d) of SMARA a lead agency may cause to be prepared an evaluation of an area classified as MRZ-3 to ascertain the significance of the mineral deposit located therein. The type of analysis which would be required to establish whether or not the area could be reclassified as MRZ-2 would require the establishment of the "positive marketability" of the resource. This analysis would involve determining the quality and quantity of the resource, as well as the economic feasibility of removing and marketing the product. This type of intensive analysis is normally undertaken only by an operator with an expressed interest in developing the resource. No such interest currently exists in the two areas designated as MRZ-3 in the NCRSP area. This may be due to indications that the feasibility of mining aggregate from the two designated sites would be extremely limited. These include:

- ✱ Uncertainty whether the two classified areas contain marketable quantities and quality of aggregate. The aggregate resources of the two MRZ-3 areas are located along Antelope and South Branch Pleasant Grove Creeks and consist of some durable dredge tailings which may have derived from the Riverbank formation (John Clinkenaerd, CDMG, personal communication, 1989). If as a result of dredging operations, high quality aggregates in the Riverbank formation have been mixed with poorer quality aggregates of underlying formations, the feasibility of successfully extracting the higher quality aggregates may be limited (CDMG 1985).
- ✱ A considerable obstacle to development of potential mineral resources due to the proximity of the two classified areas to existing and planned land uses which are considered "incompatible" with mining operations. Examples of these land uses include high and low density residential, public facilities, geographically limited but impact intensive industrial, and commercial uses.

In addition to areas already classified as MRZ-3, other sources of aggregates may occur in unclassified areas which contain Mehrten conglomerate formations. These also may contain substantial aggregate materials. As depicted in Figure 3.2-2, the Mehrten formation is known to slope southwesterly, tapering into several fingers which terminate in the NCRSP area. The distribution of conglomerate largely occurs in the area north of the Highway 65 Bypass. This suggests that the NCRSP Plan area is on the fringe of the larger deposit, and consequently, does not harbor as substantial a quantity of aggregate as do properties to the north. In addition, the most desirable mining areas exist where the Mehrten conglomerate formation is exposed, i.e., not overlain by the volcanic mudflow. As depicted in Figure 3.2-1, only a limited area of exposed conglomerate material occurs in the Plan area. At locations where mudflow overlies the conglomerate, harvesting is exacerbated by the necessity to remove the valueless hardcap in order to reach the conglomerate. The magnitude of this problem is largely dependent upon the thickness of the mantle in relation to the quantity of marketable material beneath the hardcap. Because the NCRSP is

situated on the edge of the Mehrten formation, however, the mudflow mantle could be very thin and not pose a great obstacle to mining of the area. As noted above, all areas in the Plan area not classified as MRZ-3 are classified as MRZ-1 (not containing significant mineral resources). MRZ-1 areas include the areas of exposed conglomerate.

Seismicity

As a result of its location in central California, the project site will likely be subjected to geologically induced ground shaking at some point in time. However, according to the California Division of Mines and Geology bulletin, Urban Geology-Master Plan for California, southern Placer County is classified as a low severity earthquake zone. The probable maximum expected earthquake intensity which may be anticipated in this zone would be VI or VII on the Modified Mercalli Scale. Typical effects of such an event would likely include: cracks in weak masonry and chimneys; shaking or rustling of trees and bushes; movement of furniture; and breaking of pictures, knickknacks, glasses, or china.

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. According to a spokesman for the California Department of Mines and Geology, increased volcanic activity ranging from Alaska to South America, and increased earthquake activity along the Pacific coast, and throughout California, may be indicative of increasing tectonic movement and represent potential reactivation of many currently "inactive" fault systems.

Regional Faults

Numerous faults have been identified within 100 kilometers of the Sacramento area. A listing and description of these faults is presented as Table 3.2-2. No known active faults are located within Placer County. However, the Draft Loomis Basin Environmental Impact Report identifies three inactive faults in the immediate vicinity of the Plan area. These include the Volcano Hill Fault, an unnamed fault alignment which extends east-west between Folsom Lake and the City of Rocklin, and the Linda Creek Fault. The approximate locations of these faults are shown in Figure 3.2-3.

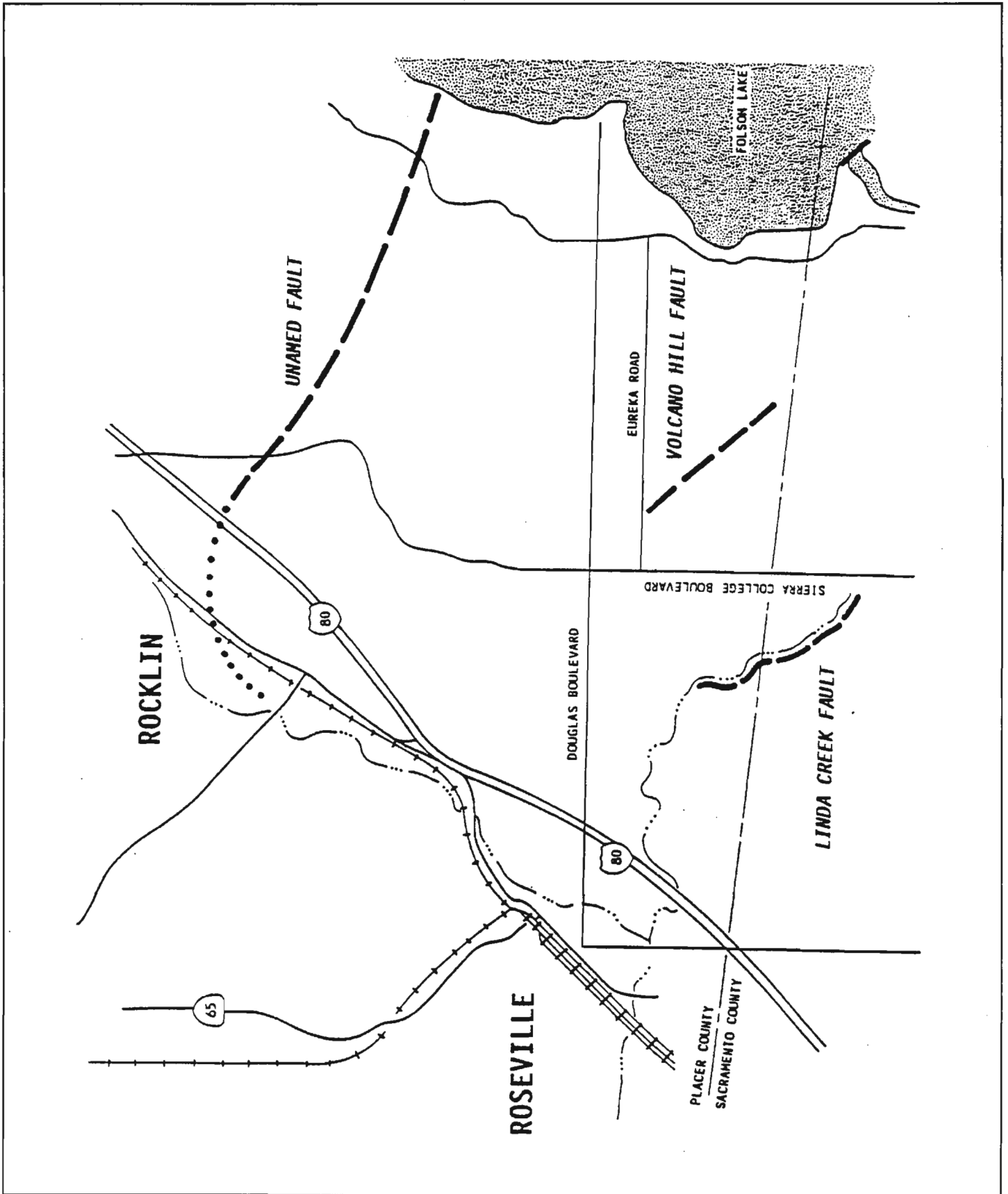
The Volcano Hill fault is situated 1.3 miles southwest of the Plan area. This fault extends northwesterly from Volcano Hill for a distance of approximately one mile, terminating near Eureka Road. There has been no recorded activity along the fault and, as a result, it is considered inactive.

TABLE 3.2-2
FAULTS WITHIN 100 KILOMETERS OF SACRAMENTO

Name	Fault Type	Distance From Sacramento (Kilometers)	Maximum Creditable ¹ Earthquake (Magnitude)	References
Dunigan Hills	Subsurface Normal	25	Not Estimated	Bowen (1962) Jennings (1975) Real et al. (1978)
Midland	Subsurface Normal	35	Not Estimated	Bowen (1962)
FOOTHILL FAULT SYSTEM				
Bear Mountain	Vertical	35	6.5	Bennett (1978) Davis (1979) Cramer et al. (1978)
New Melones	Vertical	65	6.5	Bennet, Davis, and Cramer (1978)
Stockton	Subsurface	75	5.0	San Joaquin County
SAN ANDREAS FAULT SYSTEM				
Antioch	Strike-Slip Right Lateral	70	Not Estimated	
Greenville	Same	70	6.5	Wright et al. (1982)
Concord	Same	75	6.9	Slemmons & Chung (1982)
Green Valley	Same	75	6.9	Slemmons & Chung (1982)
Healdsburg/ Rogers Creek	Same	90	7±¼	Slemmons & Chung (1982)
Hayward	Same	90	7±¼	Slemmons & Chung (1982)
Calaveras	Same	100	7±¼	Slemmons & Chung (1982)
San Andreas	Same	120	8.3	Wesson et al. (1979)

¹ Maximum Credible Earthquake. The term maximum credible earthquake (MCE) is defined as the largest earthquake which is likely to be generated along an active fault zone (Slemmons & Chung 1982). The magnitude of the MCE is estimated from the geologic character and earthquake history of the fault. Most workers, when calculating the MCE for the strike-slip faults of the Coast Ranges, estimate the potential length of surface rupture, then use empirical relations which equate rupture length with earthquake magnitude. As a minimum, the MCE must equal the largest historic earthquake on a fault.

SOURCE: Tabular information from the North Natomas Community Plan DEIR, July 1985.



The unnamed fault identified in the Loomis Basin DEIR is located approximately four miles northeast of the project site, and extends between Folsom Lake and Rocklin. Segments of this fault are concealed, and consequently, unmapped. However the east-west alignment suggests that the fault may 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 which may be undergoing reactivation as a result of continental tectonic activity. However, no such evidence has been observed along the unnamed fault alignment.

In 1973 the California Division of Mines and Geology identified the "Linda Creek Fault." As the name implies, this fault is located along Linda Creek. The extent of this fault is limited to a segment of creek in the City of Roseville and Sacramento County, approximately three miles west of the project site. Subsequent analyses have raised some doubts as to the actual existence of the Linda Creek fault. No evidence or records of local seismic activity currently exist to prove conclusively or disprove the existence of the Linda Creek "fault." The City of Roseville currently disputes the existence of this fault.

Soils

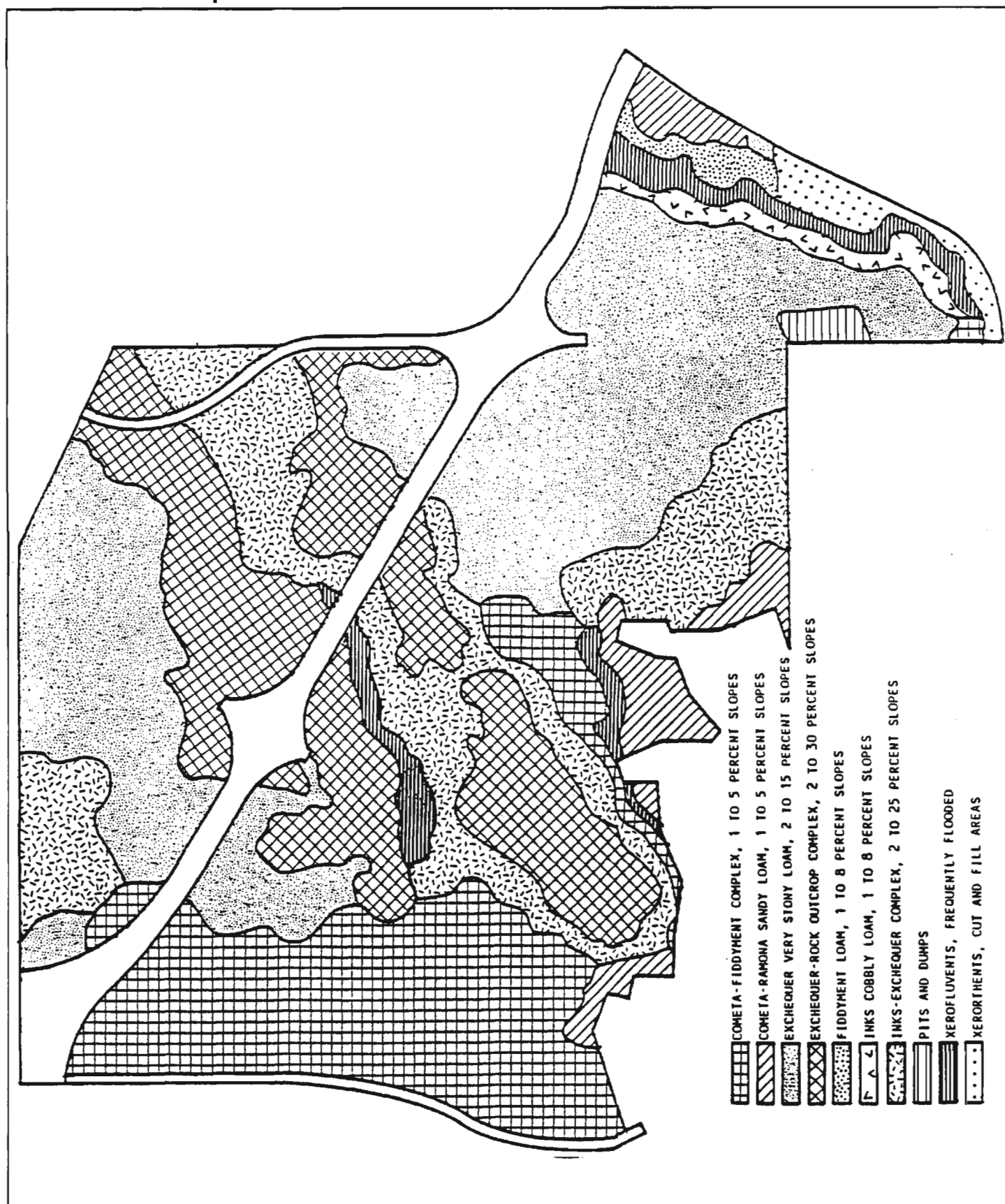
According to the Soil Survey of Placer County, California, Western Part, the geography in the Roseville vicinity is predominantly composed of soils associated with stream terraces and alluvial bottoms. The distribution of these soils is depicted in Figure 3.2-4.

Agricultural Soil Classifications

Because of the historic predominance of agriculture in Placer County, it is inevitable that, as development continues, the area available for agricultural use will decrease. Generally, it is recognized that areas west of Roseville tend to be more valuable for farming than areas such as the project site. The relative value of any site for agricultural use is directly affected by the type of soils present. The suitability of soils for agricultural uses are evaluated utilizing two methods, Soil Capability Classification and the Storie Index.

Soil Capability classes, which range from I to VIII, are used to represent the relative ability of individual soils to support farm crops, and more specifically to identify specific limitations of individual soils. Soils classified in higher capability classes generally pose greater limitations to agricultural crop production than those with lower ratings. Prime agricultural soils in Placer County include soils with a Capability class of I. Soils which are included in this category are presented in Table 3-4. None of the soils within the NCRSP area are classified as Prime Agricultural Land Soils.

The Storie Index is a rating system used to rate soils according to their suitability for agricultural use. The Storie Index ranges from 0 to 100, with higher scores being indicative of agriculturally valuable soils. Storie classification is based on soil



characteristics, and is obtained by evaluating such factors as soil depth, surface texture, subsoil characteristics, drainage, salts and alkali, and relief. Soils are placed in grades according to their suitability for general intensive agriculture.

The following is a description of the agricultural soils within the NCRSP.

Cometa-Fiddymment Complex

The distribution of the Cometa-Fiddymment complex, 1 to 5 percent slopes, within the NCRSP area is limited to the western portion of the Plan area along Highway 65. This soil complex is more common west of Highway 65. The soil capability unit is IVE-3(17) irrigated and nonirrigated, and the Storie Index is 34. The Cometa soil component of this complex is a relatively deep soil with an effective rooting depth of 60 inches or more. The soil may remain saturated for a period of time following an intense rainstorm. The Fiddymment soil component of this complex is a well-drained, moderately deep soil that formed over a hardpan.

Cometa Ramona Sandy Loam

Cometa Ramona sandy loam occurs in the extreme southwestern corner of the NCRSP area near the Diamond Oaks subdivision. The soil capability unit is IIIe-3(17) irrigated and nonirrigated, and the Storie Index is 50. The Cometa soil component of this complex is a relatively deep soil with an effective rooting depth of 60 inches or more. The soil may remain saturated for a period of time following an intense rainstorm. The Ramona soil is typically very deep and well drained. Several native oaks occur along South Branch Pleasant Grove Creek in association with this soil.

Exchequer Very Stony Loam

This is a shallow somewhat excessively drained very stony soil underlain by hard andesitic breccia. This soil has a Capability class of VIIs(18), and a Storie Index of 15. Exchequer very stony loam is the most prevalent soil type identified within the NCRSP area. After intense rainstorms, this soil may be saturated and water may flow across the surface for a short time.

Exchequer-Rock Outcrop Complex

This complex includes approximately 60 percent Exchequer soil and has a Capability class of VIIs(18), and a Storie Index of 12. Exchequer soil is a brown very stony loam and cobbly loam underlain by hard andesitic breccia at approximately 11 inches in depth. Rock outcrop consists of areas where andesitic breccia 50 to 500 feet in size occur at the surface.

Inks Cobbly Loam

This is a shallow, well-drained cobbly soil underlain by andesitic conglomerate. Nearly 80 percent of the area mapped in this soil complex is Inks cobbly loam. In the NCRSP, this soil type occurs along Antelope Creek. This soil has a Capability unit of IVe-8(18) irrigated and nonirrigated, and a Storie Index of 21.

Inks-Exchequer Complex

This soil complex is composed of roughly 40 percent Inks and 30 percent Exchequer soils. This soil complex occurs as a narrow band running northeast-southwest across the midsection of the NCRSP area. This soil has a Capability unit of IVe-1(18) irrigated and nonirrigated, and a Storie Index of 36. The Exchequer in this soil complex is a shallow somewhat excessively drained very stony soil which formed from andesitic breccia. After intense rainstorms, this soil is saturated and water flows across the surface.

Pits and Dumps

These are areas mapped by the Soil Conservation Service which consist of sand and gravel pits, refuse dumps, and rock quarries. All are typically barren and vary in permeability, erosion hazard, runoff, and water capacity. In the NCRSP area this designation is assigned to the parcel which is now the electrical substation. The Capability class is VIIIs (17,18,22), and the Storie Index 0.

Xerofluvents, Frequently Flooded

In the NCRSP, these soils are limited to areas immediately adjacent to tributaries of Pleasant Grove Creek or South Branch Pleasant Grove Creek. Xerofluvents are composed of alluvial material which is deposited with the frequent flooding which occurs. These areas are not suited for urban use because of the flood hazard. The Capability unit is IVw-2(17, 18, 22) irrigated and nonirrigated, and the Storie Index is 36.

Xerothents, Cut and Fill Areas

These areas consist of mechanically removed and mixed soil material in which soil horizons are no longer discernible. Occurrence of this material in the NCRSP area is limited to an area between Antelope Creek and the SPRR. The Capability subclass is VIIIs(17, 18, 22), and the Storie Index is less than 10. The depth of this material varies depending upon the purpose of the cut and/or fill. Some fill areas contain rocks, concrete, asphalt, and other debris. Most cut and fill areas are well drained.

Soil Constraints on Proposed Construction

Implementation of the NCRSP will require that development occur on soils which have recognized constraints to urban land use. Because of the similarity in the various soil complexes which exist within the NCRSP area, many of the constraints are common to several of the soils. Table 3.2-3 identifies the principal soil constraints to urban development by soil unit. The constraints identified in Table D6 represent the collective characteristics of the principal soils included in each soil mapping unit.

The most common soil constraint identified in the NCRSP area is shallow depth to rock or hardpan. This constraint is identified in five of the nine soils. As discussed previously under geology and in the various soil descriptions, a large portion of the NCRSP area is underlain by Mehrten materials. This material is largely responsible for the shallow soil depth identified.

The second most prevalent soil constraint identified was steepness of slope which was reported in three of the soil mapping units. Impermeability, high shrink-swell potential, and limited load-bearing strength were each identified as constraints twice. Frequent flooding and rock outcrops were each identified once.

As indicated in Table 3.2-3, the Cometa Fiddymont complex is the soil mapping unit with the greatest number of constraints. This particular unit has four identified constraints in the areas of permeability, high shrink-swell potential, limited load bearing strength, and depth to rock or hardpan.

There are two soil units with three constraints, Cometa Ramona sandy loam and Exchequer rock outcrop complex. The Cometa Ramona sandy loam has constraints in the areas of high permeability, shrink-swell potential, and limited load bearing strength. The Exchequer rock outcrop complex has constraints in the areas of depth to rock or hardpan, steepness of slope, and rock outcrops.

IMPACTS AND MITIGATION MEASURES

■ Location of project in an area subject to soil constraints

Implementation of the NCRSP will require construction on soil types which have identified constraints to urban development. Specific constraints include shallowness to rock or hardpan associated with Mehrten mudflow formations, steepness of slope, high shrink-swell potential, slow permeability, rock outcrops, and frequent flooding. The proposed locations of the various land uses identified in the NCRSP were developed taking into consideration the characteristics of the underlying soils. Proposed land use in the NCRSP blends from less intense uses in the southwestern portion of the Plan area to more intense land uses in the northeast. Consistent with Roseville policy, proposed uses in areas underlain by Mehrten are predominantly commercial, B-P, light industrial, and high-density residential. Moderate and low-density residential land use is concentrated in areas largely beyond the Mehrten formation. The only notable conflict between this City policy and the NCRSP pertains to development of R-4 housing on a 90-acre parcel near Diamond Oaks. This parcel is underlain by an extension of the Mehrten mudflow. Preliminary

TABLE 3.2-3
SOIL CONSTRAINTS TO URBAN DEVELOPMENT

	Permeability	High Shrink- Swell	Limited Load- Bearing Strength	Depth to Rock or Hardpan	Frequent Flooding	Steepness of Slope	Rock Outcrop
141: Cometa Fiddymment Complex	X	X	X	X			
142: Cometa Ramona Sandy Loam	X	X	X				
144: Exchequer Very Stony Loam				X			
145: Exchequer Rock Outcrop Complex				X		X	X
152: Inks Cobbly Loam				X		X	
154: Inks-Exchequer Complex				X		X	
173: Pits and Dumps							
194: Xerofluvents Freq. Flooded					X		
196: Xerothents, Cut and Fill Areas							

analysis indicates that the Mehrten material in this vicinity is an extension which protrudes from the concentrated formation to the north. This finger consists of relatively weathered and decomposed material, and consequently, will be more workable than similar material which has not been so exposed (Sidney Davis, Consulting Earth Scientists, personal communication, 1989). Recognizing the importance of landscaping, maintenance, and long-term viability, special design considerations are identified in the Specific Plan for areas underlain by Mehrten.

The only soils identified as subject to frequent flooding within the NCRSP area are located adjacent to intermittent drainageways and will not pose a flooding hazard to proposed development.

Implementation of the proposed plan, however, would result in development in areas identified as having soils constraints. Construction within these areas without: 1) a site-specific assessment of potential soils constraints, and 2) the implementation of construction techniques to compensate for these constraints, may pose a *potentially significant impact*.

Mitigation Measures

Implementation of Mitigation Measures 3.2-1 and 3.2-2 will reduce impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

- 3.2-1 *Special landscaping design considerations are identified in the NCRSP for areas underlain by Mehrten.*

Mitigation Measures Recommended by the EIR

- 3.2-2 *Utilize accepted engineering and construction techniques to compensate for all of the soil constraints identified within the Plan area. (Mitigation Implementation Responsibility: Developers, Contractors)*

Detailed proposals for implementation of design measures relating to soils constraints must be prepared in conjunction with a geotechnical engineer, and presented to the City for review as individual projects are proposed. Examples of such measures include:

- ✧ Drainage problems created by poor soil permeability will be reduced through development of gravel subdrains, creation of swales and channels to convey runoff.
- ✧ Structural limitations posed by the high shrink-swell potential and limited load-bearing strength of Cometa Fiddymont Complex and Cometa Ramona Sandy Loam soils can be compensated for through: development of reinforced foundations; use of concrete piers; removal of soft, compressible surface soils to expose subgrade, followed by importation of base material; and/or development of subdrains.

- ✧ Limitations on landscaping created by shallow soils, limited water-bearing capability, and/or impermeable soil materials can be reduced through overexcavation or drilling of areas to be landscaped followed by the importation of topsoil, use of drought-tolerant or shallow-rooted landscaping, use of efficient irrigation systems, and development of uses which require minimal vegetated area.
- ✧ Project design plans for single family or relatively low-density housing in areas with underlying Mehrten soil, will be prepared and submitted for review by the City. Each plan will contain a conservative landscaping plan which incorporates special landscape design considerations identified in the NCRSP.
- ✧ In areas where steep slopes exist, development can only proceed within the limitations established by the topography. Cut and fill in accordance with the recommendations of a geotechnical engineer, use of retaining structures, riprap, or gabions, and the planting and maintenance of vegetation are common methods used to stabilize slopes. It is recommended that all construction on slopes greater than 20 percent be avoided where possible. If construction is to occur, it is recommended that all engineered fill embankments on slopes greater than 20 percent be "benched" into the natural slope. Where the slopes exceed 25 percent, keyways at the toes of the embankments also should be anchored to the natural slope. Within the Plan area, slopes greater than 20 percent primarily occur along the eastern edge of parcels 36 and 102 adjacent to Antelope Creek lower watershed. Smaller areas of 20 percent and greater slope occur on parcels 1, 35, 36, 42, 82, 84, 85, 101, and 102.

✧ **Construction in areas of soils with low rippability**

The Mehrten mudflow poses potential excavation problems for urban development. The most obvious constraint is the "hardness" of the material. Excavation of utility trenches, grading for roadways, and leveling for building foundations will require extensive ripping to break the Mehrten mantle. Consistent with Roseville policy prohibiting blasting, development of the NCRSP area is proposed to proceed without blasting. Ripping on Mehrten conglomerate formations may be accomplished using an intermediate-sized backhoe and is not likely to require any equipment larger than that comparable to a D8L Caterpillar tractor with a double ripper. Ripping of Mehrten formation mudflow, however, will require equipment comparable to a D9L Caterpillar with a single ripper. This equipment will be able to excavate mudflow areas but may require extended effort on areas of rock outcrop.

Any impacts to the geologic formations underlying the project site would result, primarily from the excavation procedures described above. These impacts, however, are expected to be *less than significant*.

Mitigation Measures

Mitigation Measures Identified in the Specific Plan

3.2-3 *None identified.*

Mitigation Measures Recommended by the EIR

3.2-4 *None required.*

❖ **Generation of increased erosion resulting from construction of the offsite sewer trunk extension along South Branch Pleasant Grove Creek.**

Installation of the proposed trunk line would not significantly alter the ground surface or subsurface along the pipe alignment. The major impacts would occur in areas of limited room or construction access, where the existing creek banks force the route across steep, or potentially unstable, slopes. These sections would have to be carefully designed and constructed to guarantee both their short- and long-term stability throughout the project's serviceable life. The potential exists for severe erosion resulting from storm runoff from areas disturbed as a result of pipeline installation and access road development. This is a *potentially significant impact*.

Mitigation Measures

Mitigation Measures 3.2-5 and 3.2-6 in combination with mitigation measures proposed in the Water Quality Section of this EIR will reduce this impact to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.2-5 *Implement guidelines identified in Section 6.3 of the Specific Plan.*

Street and other public infrastructure improvements required within the floodplain and riparian habitat shall be designed and sited to minimize the impact on the natural environment.

This will be achieved by observing the following guidelines:

- ❑ Promptly revegetate cleared areas with native species.
- ❑ Minimize number of paths and trails.
- ❑ Require specific erosion and sediment control plans for all construction activity.

Mitigation Measures Recommended by the EIR

- 3.2-6 *All areas disturbed by the pipeline installation will have to be completely revegetated at the completion of construction. (Mitigation Implementation Responsibility: DFG, City, Contractor)*

The relatively flat, natural ground slope along most of the sewer route will make serious erosion unlikely in most areas, but the natural terrain will be returned to its original condition to reduce the aesthetic impacts of the proposed construction. Revegetation is most important in the steep bank areas associated with several of the proposed stream crossings. Even slight erosion can quickly undermine an entire slope or stream bank once the winter rains begin. The project sponsor will have to maintain these problem areas until a healthy growth of either grass or shrubs is fully established.

❖ **Generation of increased erosion**

Grading and trenching activities will be required for development of the area. Grading for roadways, building pads, and utility trenches will pose the greatest potential for soil disturbance, topographic impacts, wind and water erosion, and siltation of local waterways including Antelope Creek, Pleasant Grove Creek, and South Branch Pleasant Grove Creek. This is considered a *potentially significant impact*.

Mitigation Measures

Implementation of Mitigation Measures 3.2-7 and 3.2-8 will reduce impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

- 3.2-7 *Implement soil protection guidelines outlined in Section 6.3.1 of the Specific Plan*

Mitigation Measures Recommended by the EIR

- 3.2-8 *Specific requirements designed to reduce erosion will be determined on a project by project basis and will be included as conditions of approval on tentative maps. (Mitigation Implementation Responsibility: City of Roseville)*

As appropriate, these requirements will include:

- ❖ Individual projects will be required to develop dust control plans in accordance with requirements of the Placer County Air Pollution Control District.

- ✧ Project proponents will implement all measures contained within the dust control plans (and additional measures suggested by APCD) for the control of dust generation during site preparation and project construction activities.
- ✧ No disturbed areas will be left exposed for any unreasonable period of time.
- ✧ No disturbed areas that are not actively under construction will be left exposed during the winter season.

Any disturbed areas which are not being actively developed at the end of the construction season will be planted, mulched, or otherwise protected by an acceptable means for the duration of the winter.

- ✧ Measures will be implemented to protect area waterways from soil and debris during construction in the winter months.

Mitigation will include, as appropriate: construction of sediment barriers, placement of hay bales, development of temporary settling areas, installation of energy dissipaters, protection of floodways, and/or other acceptable means of reducing sediment loads. The effectiveness of chosen control methods will be determined by monitoring water quality (turbidity) at various stations throughout the NCRSP area. This monitoring will occur periodically throughout the rainy season in coordination with CVRWQCB, and DFG. If analyses show unacceptable levels of turbidity, alternative methods for the control of siltation will be implemented, and their effectiveness assessed.

✧ **Preemption of mining resources**

Implementation of the NCRSP will introduce urban land uses into two areas currently classified by the State Geologist as Mineral Resource Zone-3 (MRZ-3), and would preclude harvesting of mineral resources south of the Highway 65 Bypass. In establishing the significance of this preclusion, several factors must be taken into account. These include: 1) the regulatory requirements placed on the lead agency (i.e., the City of Roseville) to manage mineral resources; 2) the quality and quantity of the resources present; and 3) the potential for economically successful removal and marketing of the resource.

The impact of NCRSP implementation on mineral resources is expected to be *less than significant* for the following reasons:

- Existing residential land use in the proximity greatly increases the potential for compatibility conflicts with a mining operation. For reference, Placer County requires a minimum of a 1000 foot buffer between such operations and adjoining neighborhoods. Based on

conflicts at similar operations in the vicinity, it seems prudent to presume that existing land use has already precluded mineral resource harvesting in locations south of the Highway 65 Bypass.

- The two MRZ-3 areas in the NCRSP area are currently "classified" by the State Geologist. This classification may be followed by "sectorization" and eventual "designation" by the State Board of Mining and Geology. Until the areas are formally "designated" as MRZ, obligations of local agencies to manage mineral resources under SMARA are not in force.
- It has not been established as to whether or not commercial quantities of aggregate are present in both MRZ-3 areas in the Plan area. Based on information from similar sites, however, it would appear unlikely that commercial quantities of high quality aggregate could be mined at either site.

Mitigation Measures

Mitigation Measures Identified in the Specific Plan

3.2-9 *None required.*

Mitigation Measures Recommended by the EIR

3.2-10 *None required.*

⌘ **Location of project in an area subject to seismic groundshaking**

Implementation of the proposed NCRSP is not predicted to increase the likelihood of seismic activity in the vicinity. However, the potential for personal and/or property damage will be increased by the developed character of the area. This is considered a *potentially significant impact*.

Mitigation Measures

Implementation of Mitigation Measure 3.2-12 will reduce impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.2-11 *None required.*

Mitigation Measures Recommended by the EIR

3.2.12 *Adhere to the Uniform Building Code and City of Roseville building standards. (Mitigation Implementation Responsibility: City of Roseville)*

The City currently requires construction to these standards and is responsible for their enforcement.

GEOLOGY ENDNOTES

California Division of Mines and Geology. 1985. Mineral land classification: Portland cement concrete-grade aggregate in the Sacramento-Fairfield production-consumption region.

3.3 HYDROLOGY AND WATER QUALITY

SETTING

Surface Water Hydrology

Watershed Areas

As shown in Figure 3.3-1, the NCRSP area is located within two principal drainage areas, the Pleasant Grove Creek watershed and the Antelope Creek watershed. The associated watercourses are depicted in Figure 3.3-2.

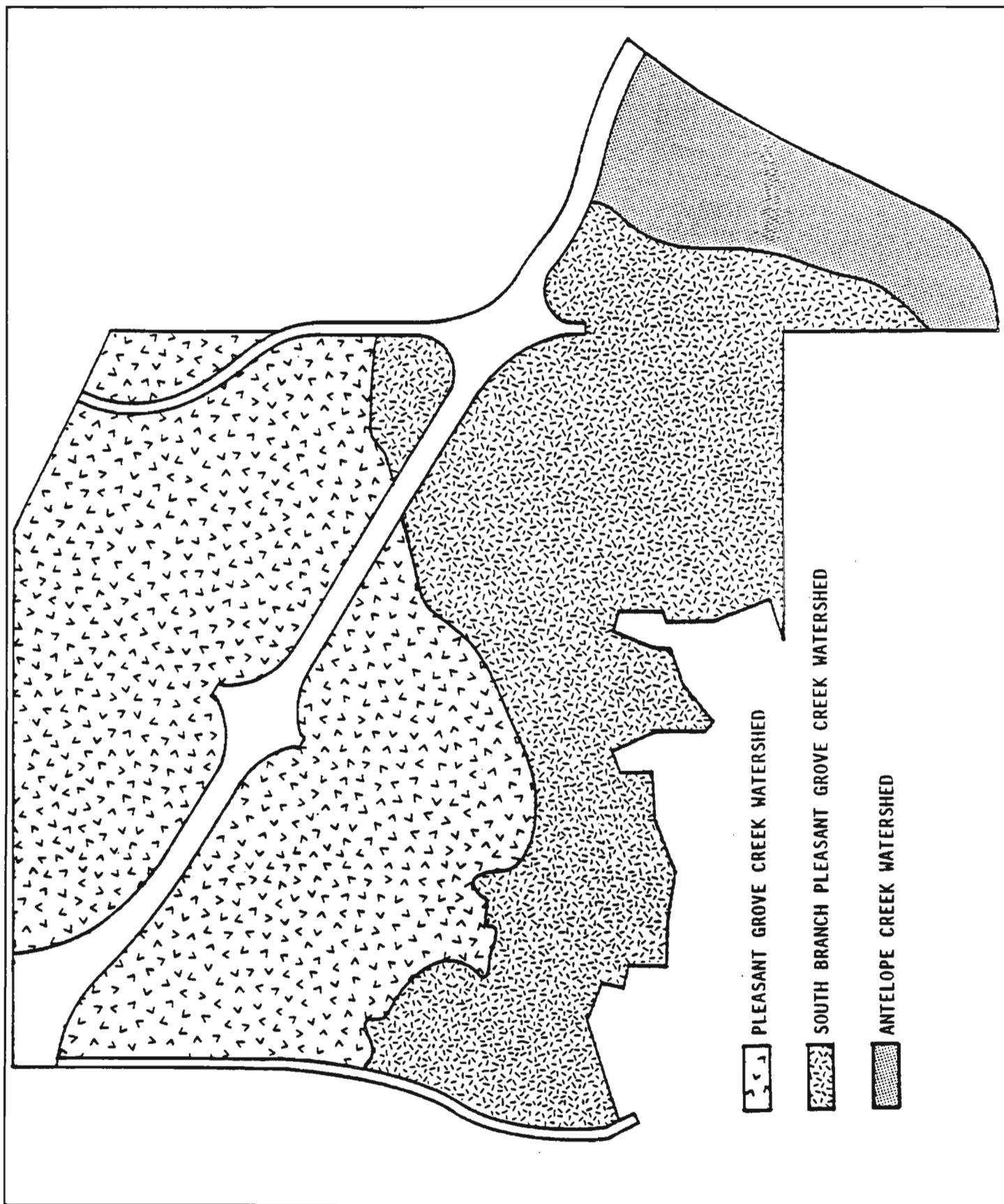
Pleasant Grove Creek

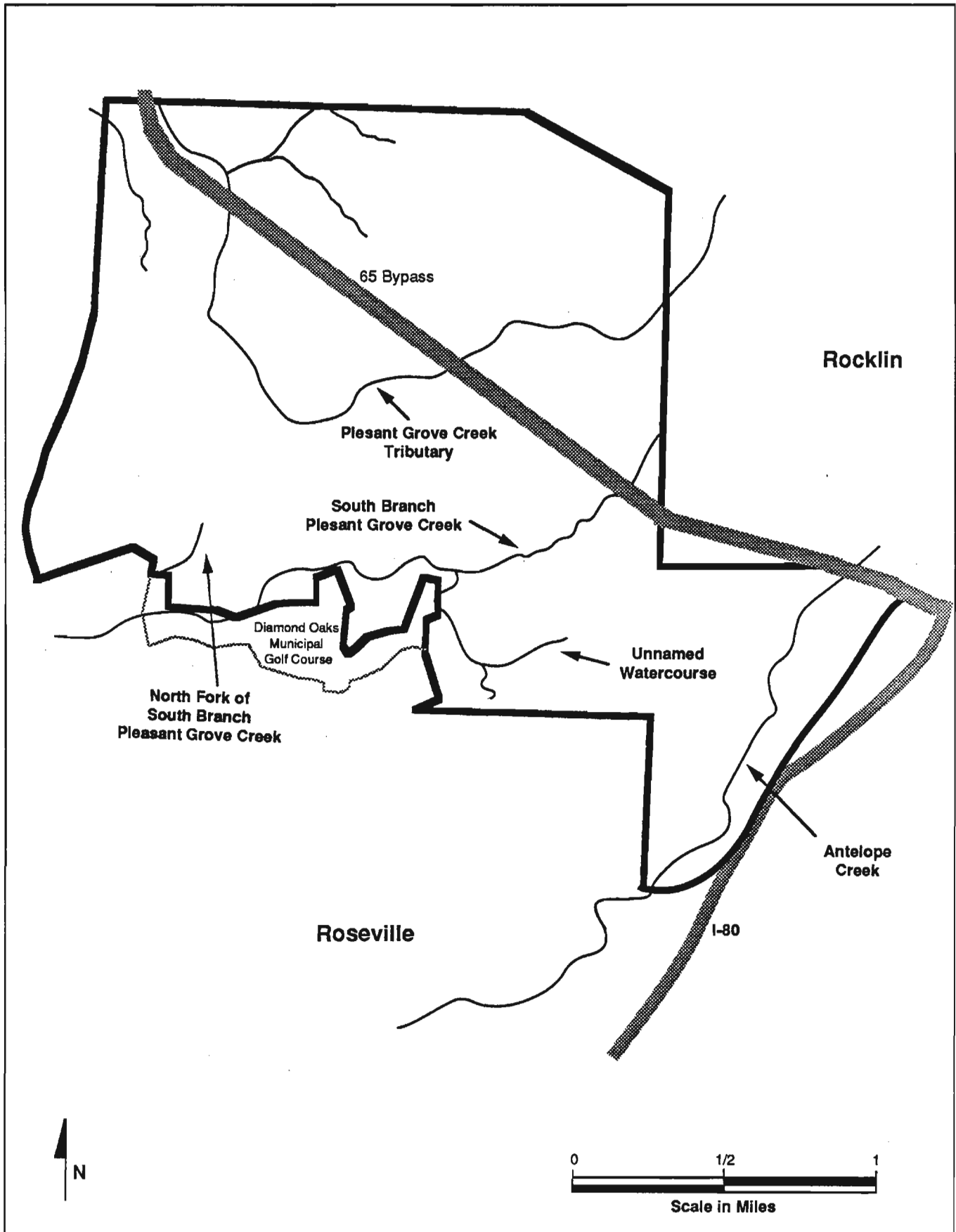
Although Pleasant Grove Creek is located approximately three-fourths of a mile north of the Plan area, approximately 95 percent of the Plan area ultimately drains to this creek. Measured upstream from the confluence with South Branch Pleasant Grove Creek, the Pleasant Grove Creek watershed encompasses ± 16.71 square miles, of which the NCRSP encompasses ± 11 percent. As shown in Figure 3.3-3, Pleasant Grove Creek continues west from Roseville through Placer County, eventually emptying into the Pleasant Grove Creek Canal approximately seven miles downstream of the Roseville corporate limit. This canal conveys runoff northward into the Cross Canal, which passes through an extensive levee network to empty into the Sacramento River just south of its confluence with the Feather River ± 14 miles west of the Roseville corporate limit.

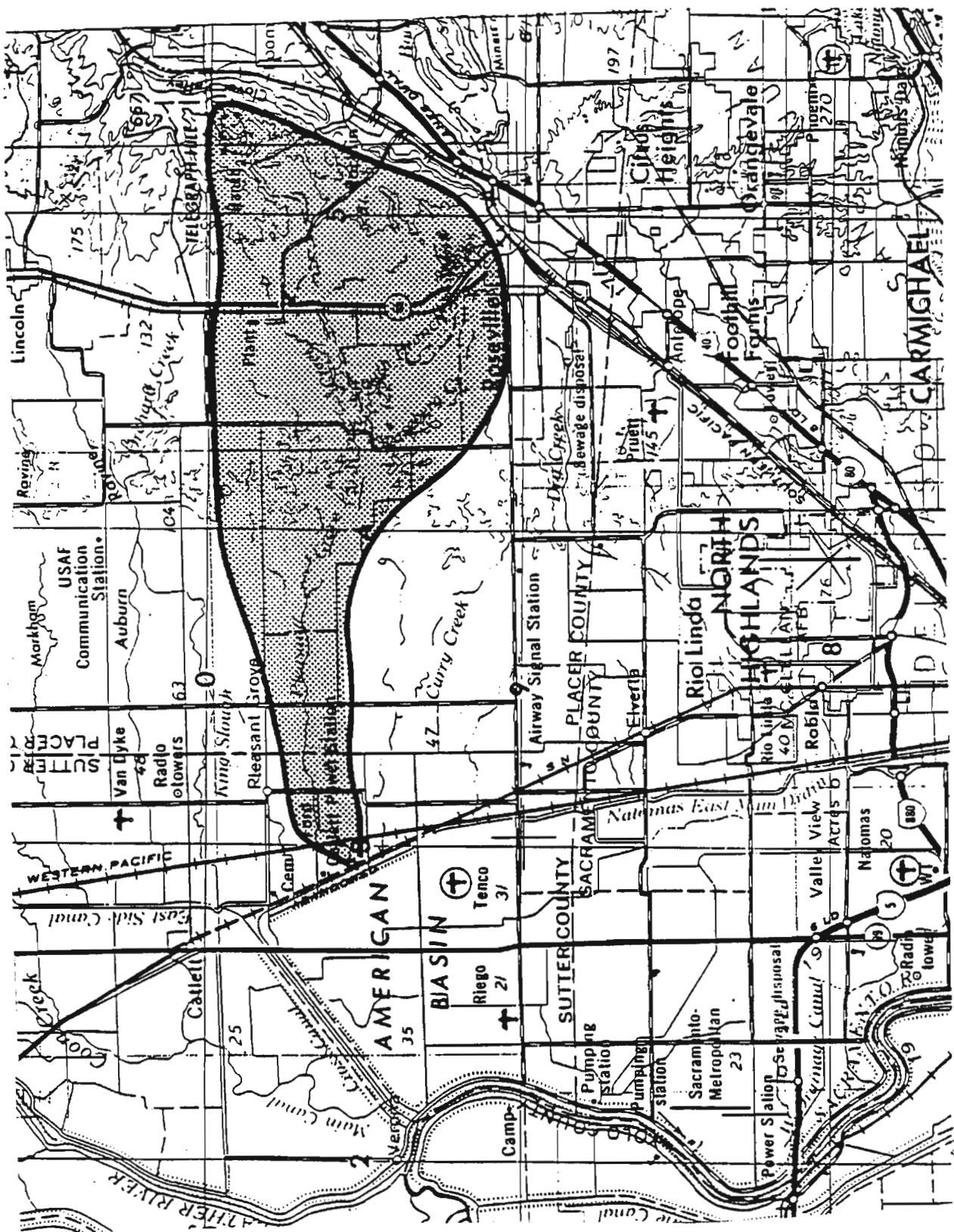
That portion of the Plan area that drains into Pleasant Grove Creek can be divided into two smaller drainages in the Plan area; drainages served by the tributary to Pleasant Grove Creek and South Branch Pleasant Grove Creek. Runoff from approximately 54 percent of the Plan area is conveyed north via the Pleasant Grove Creek tributary. Runoff from approximately 38 percent of the NCRSP area is collected by South Branch Pleasant Grove Creek. This creek drains southwesterly from the NCRSP area, turns northwest in the Northwest Specific Plan area, and ultimately joins the main channel of Pleasant Grove Creek just outside of the Roseville corporate boundary, approximately two and one-half miles west of the NCRSP area. Of the $\pm 2,100$ acres included in the Pleasant Grove Creek watershed, $\pm 1,250$ acres are drained north to Pleasant Grove Creek, and 850 acres reach Pleasant Grove Creek via South Branch Pleasant Grove Creek. The NCRSP comprises ± 39 percent of the six-square-mile South Branch Pleasant Grove Creek watershed.

Antelope Creek

Antelope Creek is the only perennial watercourse within the NCRSP area, but collects runoff from only ± 8 percent of the Plan area. This stream originates in Placer County north of Rocklin, and is recognized as an anadromous watercourse by the California







Department of Fish and Game. The Antelope Creek watershed is ± 14.9 square miles in size, one percent of which is located in the NCRSP area. The extent of the Antelope Creek watershed within the NCRSP area is easily distinguished by a steep slope which parallels the stream in the southeastern corner of the Plan area. Antelope Creek empties into Dry Creek approximately one-half mile south of the Plan area. Dry Creek, which is the major watercourse in the City of Roseville, flows southwest from the City through Placer and Sacramento Counties and the rural communities of Rio Linda and North Highlands, ultimately outletting into the East Natomas Main Drainage Canal approximately four miles southwest of the Roseville corporate boundary. The East Natomas Main Drainage Canal conveys water south into the City of Sacramento, ultimately outletting into the Sacramento River from Discovery Park.

Runoff

Climate and soil characteristics are the principal determinants of the existing hydrologic characteristics of the NCRSP area. The climate of the Central Valley is heavily polarized between the summer and winter seasons. The winter season is characterized as rainy and cool. Of the ± 20 inches of annual precipitation that Roseville receives, roughly 90 percent falls between November and April. The summer is characterized as dry with an average high temperature of 90° F. Consequently, the majority of the watercourses in the vicinity are seasonal, supporting flows only during the rainy season. As discussed in the Geology and Soils section of this report, the NCRSP area is largely underlain by impervious materials, including Mehrten formation and soil units with clay subsoils and hardpans. These conditions tend to produce greater runoff than more common soils which provide greater infiltration.

Flooding

Hydrologic and Flood Control Studies

Historically, flooding has been a recurring problem at numerous locations within Roseville. In 1983, the City implemented a flood control strategy identified in the Flood Analysis of the Roseville Basin prepared by the firm of Philip Williams & Associates. This study indicated that flooding within the City could be reduced by delaying peaking of Dry Creek and its tributaries while maintaining the early peaking characteristics of Cirby Creek and its tributaries.

In 1988, the Army Corps of Engineers (COE) prepared a Draft Feasibility Report and Environmental Impact Statement for a proposed flood control program in Roseville. The proposed flood control plan includes modification and acquisition of some adjacent floodplain areas for flow conveyance on Dry, Cirby, and Linda Creeks. On Dry Creek, the plan would extend from the SPRR bridge upstream to the Darling Way bridge, a distance of $\pm 5,900$ feet. On Linda Creek, the plan would extend from the confluence of Linda and Cirby Creeks upstream to the Old Auburn Road bridge, a distance of $\pm 14,000$ feet. This plan is currently being reviewed by the City. None of the NCRSP area is included in this proposal.

A hydrologic study which included the NCRSP area was prepared in 1986 by the firm of Nolte and Associates. This study assessed all Plan area streams identified by the Federal Emergency Management Agency (FEMA) Flood Insurance Study. The hydrologic analysis identifies discharge conditions for 10-, 50-, 100-, and 500-year storm events for existing (1985) and future conditions. Future conditions assumed buildout of the City of Roseville and relevant portions of Placer County. Peak discharge rates were calculated consistent with FEMA requirements.

In 1989, a detailed hydrologic study of the NCRSP area was prepared by the firm of Gill & Pulver Engineers, Inc. In this study, subbasin runoff was determined by the use of the Kinematic Wave Method in the Corps of Engineers computer program HEC-1. In the Kinematic Wave method the flow planes, collector channels, and main channels are defined and considered in the analysis. A Kinematic Wave technique transforms rainfall excess into subbasin outflow. The Kinematic Wave approach was applied to the NCRSP area and incorporated with the entire runoff model developed for the Pleasant Grove Creek and tributaries watershed. Prior to this study, topographic mapping at a scale of 1" = 100' with one-foot contour intervals had been developed for the site. This topographic mapping allowed a much more detailed analysis of runoff than previously was possible. Using the mapping, previous hydraulic studies and the computer program HEC-2, floodplains resulting from ultimate discharges were defined in detail throughout the project area.

Local and Regional Flooding Hazard Potential

Urban development produces an increase in the amount of smooth impervious surface, i.e., streets, sidewalks, roofs, storm drains, etc. As the amount of these surfaces increases, the potential for infiltration decreases, and consequently the volume of runoff increases. Similarly, elimination of constraints to flow reduces the time required to achieve peak runoff conditions. Table 3.3-1 shows future peak flows that are predicted to occur with buildout of the project area.

As a consequence of the undeveloped condition of the majority of the Plan area, relatively small size of the watersheds, and the location of the Plan area near the upstream limits of the watersheds, flooding within the Plan area is not presently a problem. The existing 100-year floodplain within the NCRSP is depicted in Figure 3.3-4, the NCRSP Map. As discussed above, the boundaries of this floodplain were determined through a detailed HEC-2 analysis using the project mapping. Floodplains were determined by Gill and Pulver Engineers, Inc. and are contained in the lower watershed boundaries.

The NCRSP includes approximately 0.3 square miles of the Antelope Creek basin. This area is near the downstream end of the creek. As such, most plan area runoff from a major storm event will drain to the creek prior to the arrival of peak flows, which are largely generated from upstream portions of the watershed. Therefore, NCRSP runoff will not significantly impact the peak discharge in Antelope Creek or Dry Creek within the Roseville City limits. Pleasant Grove Creek and South Branch Pleasant Grove Creek drain west from the Plan area and do not contribute to flows in Dry Creek. Consequently, implementation of the NCRSP will not exacerbate existing flooding conditions within the City.

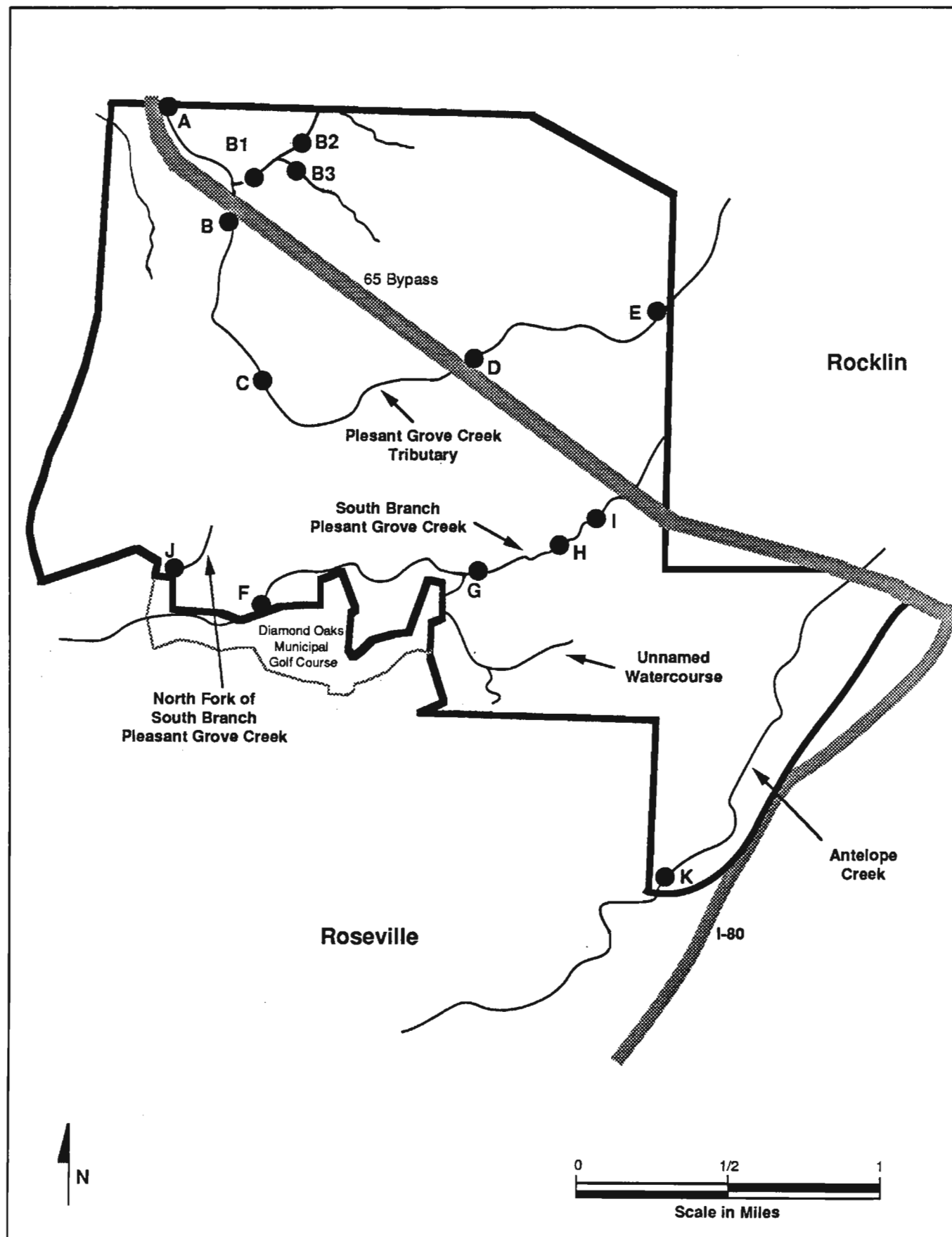
TABLE 3.3-1
100-YEAR PEAK DISCHARGE (CFS)
WITH AND WITHOUT PROJECT CONDITIONS

Location	Drainage Area (mi ²)	Ultimate Unmitigated Discharge	
		Without Project	With Project
<u>Pleasant Grove Creek Tributary</u>			
Point A at Confluence with Pleasant Grove Creek	2.88 ¹	1,240	1,500
Point B at Highway 65 Crossing	1.75	900	900
Point B1 North Tributary to Pleasant Grove Tributary	0.63 ¹	550	1,110
Point B2 North Tributary to Pleasant Grove Tributary	0.31 ¹	280	720
Point B3 North Tributary to Pleasant Grove Tributary	0.32	280	560
Point C at Approximately 4,800 feet Upstream of Highway 65	1.41	880	880
Point D at Highway 65	1.01	750	850
Point E at Stanford Ranch Road	0.58	620	620
<u>South Branch Pleasant Grove Creek</u>			
Point F at Project Limits	1.26	830	1,010
Point G 4,600 Feet Upstream of Project Limits	0.43	300	540
Point H Approximately 2,000 Feet Downstream of Highway 65	0.29	230	400
Point I Approximately 1,400 Feet Downstream of Highway 65	0.13	120	160
Point J at Project Limits of North Fork	0.18	170	350
<u>Antelope Creek²</u>			
Point K at Project Limits	14.85	2,900	2,900

¹ The with project area is 0.09 square miles larger than the tabulated without project area.

² As per COE office report, *Dry Creek, Placer and Sacramento Counties, California, Hydrology*, July 1984, revised 1988.
 SOURCE: Gill and Pulver Engineers, Inc.

Locations of Projected 100-Year Peak Discharges as Identified in Table 3.3-1 Figure 3.3-4



The vicinity surrounding the confluence of the Sacramento and Feather Rivers includes large areas of slough and floodplain which absorb excess flows from the above watersheds during heavy rains and spring floods. Much of the storm water storage capacity of this floodplain area is maintained through a complex system of levees and dikes. Original levees were constructed to protect agricultural interests prior to 1900. Since that time, the system has been continually improved and expanded. However, urban development throughout the Sacramento Valley has continued to increase levels of runoff into the system, and the system is being routinely improved to contain the increased volume of runoff. According to COE, current studies indicate that Pleasant Grove and Cross Canal levees do not have adequate freeboard under existing conditions. An additional complication is presented by existing flooding along Pleasant Grove Creek upstream of the levee system where channel improvements have not been implemented. During heavy flows, water escapes from unimproved segments of the creek and becomes trapped behind the levees of the downstream improved sections. This trapped water must be siphoned and/or pumped through the levees into the canal system.

In response to growing concern for the levee system, Sutter County has requested that projects within upstream watersheds implement measures to minimize downstream drainage impacts. Due to increasing regional flooding problems, the City of Roseville, along with Rocklin, Lincoln, Loomis, Auburn, Colfax, and Placer County, have met and discussed potential regional solutions, including formation of a regional flood control district which would formulate regional strategies for flood control management. The feasibility of the formation of such a district, however, has not yet been determined.

Groundwater Resources

Groundwater is a resource of regional concern. Continued development of the Sacramento area poses increased potential for contamination of the regional aquifer. According to the Sutter-Placer Watershed Area Study (1982), the NCRSP area is situated within subarea 05 of the Valley Unit. This subarea generally includes all of the area within the Pleasant Grove Creek watershed south of the main channel of Pleasant Grove Creek, as well as area within the Curry Creek watershed. According to the Sutter-Placer Watershed Area Study, the depth to groundwater in this subarea generally ranges from 70 to 100 feet. However, largely as a result of pumping for farm irrigation, groundwater resources in this subarea are being overdrafted at a rate equivalent to 3.5 feet annually. According to a study by the firm of Wallace Van Alstine & Kuhl (1986), the Plan area is underlain by a 500-foot-thick layer of Tertiary and early Pleistocene alluvial deposits. These deposits include impervious layers which severely limit direct infiltration of surface water. Consistent with the findings of the Sutter-Placer Watershed Study, this report indicates that ground water in the area is located at a depth of approximately 100 feet and recharge from surface sources is minimal.

As discussed in the Geology and Soils section, there is an aggregate harvesting operation on a site immediately north of and adjacent to the NCRSP area. The potential for groundwater contamination by that operation was evaluated by Louke and Associates, a firm specializing in geophysical analysis. As a consequence of the extensive geophysical analysis which has been performed in conjunction with mapping

of the aggregate resource on that property, contour and isochore (thickness) maps of the various stratigraphic units have been prepared. Findings of this survey indicate that a bed of clay is encountered at depths of 100 to 120 feet below the surface. The upper surface of this clay layer slopes gently and regularly to the west and southwest at a rate of about one degree. No evidence of a regional aquifer was encountered above the clay layer. Based on borings, this layer is estimated to be approximately 60 feet thick, below which the clay intermixed with silty sandy material extends to a depth of approximately 440 feet where granitic rock is encountered.

Water Quality

No analyses of existing surface or groundwater sources within the Plan area are currently available. It is assumed that no adverse surface water quality conditions exist within the Pleasant Grove watershed in the Plan area due to the area's location within the uppermost portion of the watershed, as well as the relatively undeveloped nature of the watershed. Some contamination of the tributaries to Pleasant Grove Creek, however, may be expected as a result of storm runoff from Highway 65 in the form of petroleum products and various metals.

The Antelope Creek watershed drains several developed areas associated with the City of Rocklin, the Southern Pacific Railway, and I-80. Contaminants present in this watercourse are likely to include those typically associated with urban area waterways including petroleums, phosphates, nitrates, metals, chlorides, and other "by-products" of the urban lifestyle. The water quality characteristics of several local streams are presented in Table 3.3-2. These characteristics are presented as examples of streams whose watersheds contain substantial urban land use.

IMPACTS AND MITIGATION MEASURES

✱ Increase in storm water runoff

Within the Plan area, development will produce an increase in runoff volume and a decrease in the time required to reach peak discharge for areas within the Pleasant Grove Creek and South Branch Pleasant Grove Creek watersheds. This is considered a *potentially significant impact*.

Mitigation Measures

Implementation of Mitigation Measures 3.3-1 through 3.3-3 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.3-1 *Implement the Master Drainage Plan which is currently being prepared for the Plan area.*

TABLE 3.3-2
WATER QUALITY CHARACTERISTICS OF SELECTED URBAN
WATERWAYS

	Sacramento ¹ River	Arcade ¹ Creek	Dry ² Creek
<u>Water Characteristics</u>			
pH	7.3-7.9		7.0
Temp (°C)	7.7-13.2		18.0
DO (mg/l)	10.4-11.6		8.7
<u>Common Pollutants</u>			
Nitrate (mgN/l)	0.03-28.0	0.43-0.57	0.02
Nitrite (mgN/l)	0.02-0.02		<0.01
Total (NH ₃)			0.30
Total Kjeldahl N (mgN/l)	0.10-1.20	1.20-2.90	0.61
Total Phosphate (mgP/l)	0.03-0.50	0.12-0.57	0.16
Oil and Grease (mg/l)	10.0-11.3	0.60-23.2	
 ¹ SRAPC, 1978			
² Dewante and Stowell, 1980			

This Master Drainage Plan will include estimates of future flows and definition of principal storm drains to serve the NCRSP area. In accordance with City ordinance, drainage facilities will be designed to accommodate ultimate flows. As a component of the Master Drainage Plan, appropriate measures, including detention as necessary, will be implemented to reduce the 100-year discharge to an amount less than or equal to pre-project flow conditions at the project limits. Figure 3.3-5 shows the location of the proposed detention basin sites.

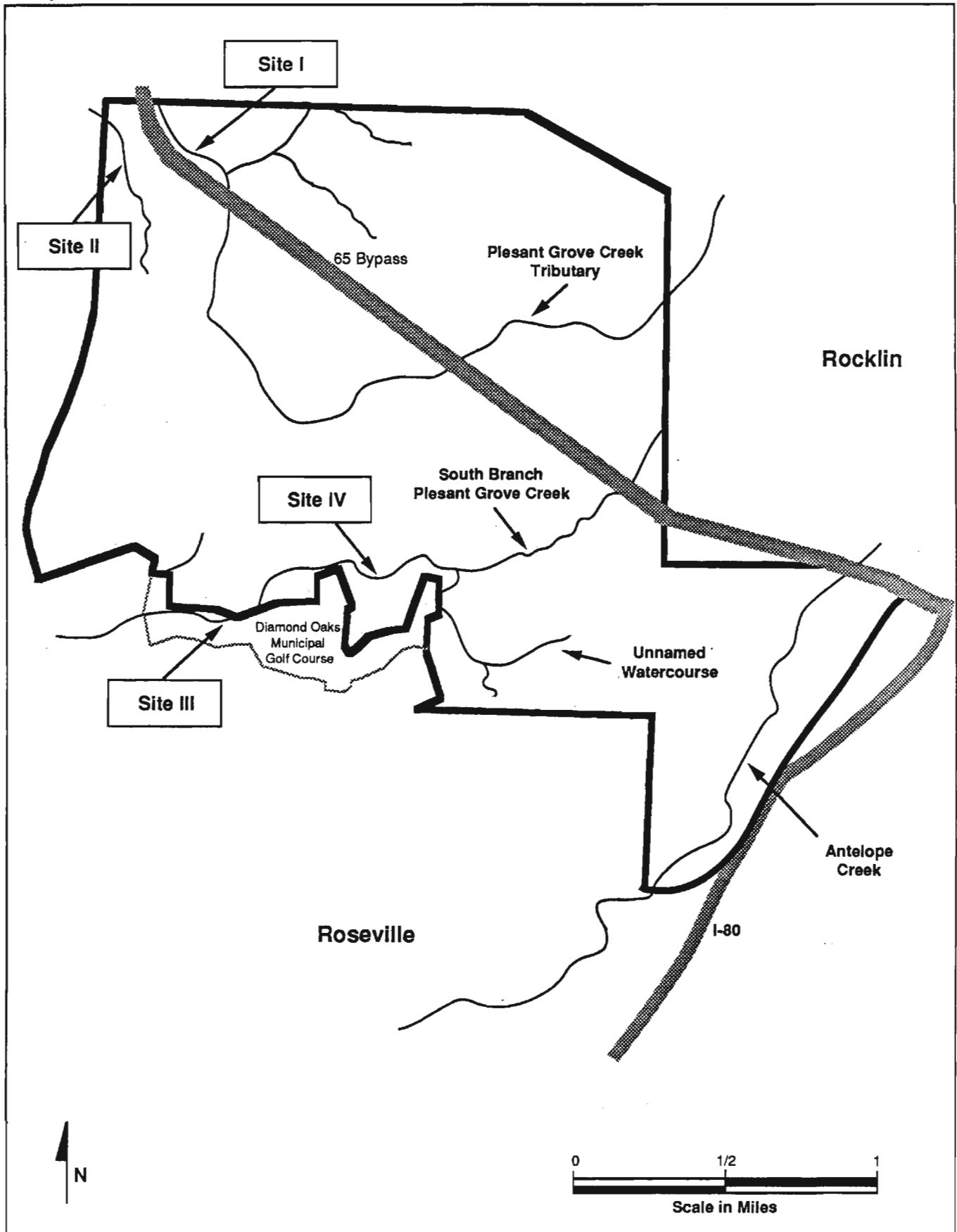
The outlet discharges from the basins at Sites I and II will reduce post-project 100-year flows sufficiently lower than or equal to the pre-project discharges such that the combined discharge at their point of confluence downstream of the project is less than or equal to the pre-project flow. The proposed basin at Site III will be sized to reduce the 100-year post-project discharge through Diamond Oaks to channel capacity. In conjunction with reducing the peak discharge the capacity of the culvert under Diamond Oaks Road may be increased in order to eliminate flooding of any adjacent homes in Diamond Oaks from the 100-year event.

A fourth detention basin may be required approximately $\frac{1}{4}$ mile upstream of the Diamond Oaks basin site. This fourth basin would be used to supplement the detention capacity on Site III should development constraints on Site III prevent the creation of adequate storage capacity at Site III.

Each of these detention basins would be naturally vegetated and would detain water for no longer than 24 hours and only during severe storm periods. They would operate passively so no operational management would be required. These basins would, however, require some maintenance. Since detention basins will be within the 100-year floodplain and floodplain areas will be deeded to the City, detention basin maintenance will be the City's responsibility. Additional criteria concerning detention storage is being finalized by the City of Roseville and Placer County. The design of the proposed detention facilities will comply with the forthcoming criteria.

3.3-2 *Dedicate all areas within lower watershed, parcel nos. 80 through 88, to the City of Roseville.*

The lower watershed parcels contain the post project 100-year floodplain and additional wetland preserve areas. These areas will be dedicated to the City. Development will be precluded from the lower watershed preserves except as necessary for road crossings, emplacement of infrastructure, channel improvements, bike trails, or other activities allowed by the City. These areas are to be maintained as natural vegetated corridors which will provide natural buffering of runoff as well as capacity for storm runoff. No grading or development will be permitted within the lower watershed except as approved by the City. Any construction within the 100-year floodplain will require a streambed alteration agreement from the Department of Fish and



Game, and in some instances, a 404 permit from the Army Corps of Engineers. Adherence to all conditions of compliance with DFG and COE permits will be monitored as part of the mitigation monitoring program developed for this EIR.

Mitigation Measures Recommended by the EIR

3.3-3 *Review of all drainage facilities designs by the Public Works Department prior to approval of individual projects. (Mitigation Implementation Responsibility: City of Roseville)*

❖ **Loss of groundwater recharge opportunity**

Development on impervious surfaces will reduce the area available for infiltration of surface water. Conversely, the year-round presence of water will increase the amount of water available for infiltration. Because domestic water will be provided to the Plan area from the Roseville municipal system, which predominantly relies on surface water sources, groundwater in the vicinity occurs 70 to 100 feet below the surface; and because most soils in the area exhibit limited permeability as a result of clay content and/or existence of a hardpan, the impact of the project on groundwater recharge and quality is expected to be *less than significant*.

Mitigation Measures

Mitigation Measures Identified in the Specific Plan

3.3-4 *None identified.*

Mitigation Measures Recommended by the EIR

3.3-5 *None required.*

❖ **Short-term degradation of surface water quality associated with project construction**

During construction, runoff from disturbed areas will likely contain silt and debris, resulting in short-term increases in the sediment load of project area runoff. Although the significance of this impact will vary depending on the level of construction activity, weather conditions, soil conditions, and the physical and biological characteristics of the watercourse which receives the runoff, increased sedimentation of area waterways resulting from construction activities on the project site must be considered a *potentially significant impact*.

Mitigation Measures

Implementation of Mitigation Measure 3.3-6 will reduce project impacts to a less-than-significant level.

Mitigation Measures Provided by the Specific Plan

3.3-6 *Adhere to policies presented in Section 6.3 of the Specific Plan, Soil Protection.*

Mitigation Measures Recommended by the EIR

3.3-7 *No additional mitigation measures required.*

❖ **Long-term degradation of surface water quality associated with the urban runoff from the Plan area**

Storm runoff from urbanized portions of the Plan area will contribute to the level of urban pollutants in area waterways which receive this runoff. Estimates of the concentrations of various constituents typically associated with urban runoff are listed in Table 3.3-3. These concentrations were formulated by Balance Hydrologics (1989) to represent the characteristics of Sacramento area urban runoff, and are listed here to indicate the expected quality of Plan area runoff once development within the area is complete. Wet season flows, shown in Table 3.3-3, are generated by precipitation while dry season flows are largely the result of inefficient landscape irrigation.

Without effective mitigation, drainage of runoff to Antelope and Pleasant Grove stream systems will pose a *significant impact* on the quality of these streams by increasing the total contaminant "load" for these streams.

Mitigation Measures

Implementation of Mitigation Measures 3.3-8 through 3.3-10 will reduce potentially significant impacts on surface water quality to less-than-significant levels.

Mitigation Measures Identified in the Specific Plan

3.3-8 *Adhere to policies presented in Section 6.4.1 of the Specific Plan.*

Mitigation Measures Recommended by the EIR

3.3-9 *Incorporate Best Management Practices (BMP) into the design of drainage systems for individual projects within the Plan area. (Mitigation Implementation Responsibility: Developers, City of Roseville)*

Project applicants will be responsible for the design and construction of onsite drainage facilities which will serve to reduce the levels of contaminants associated with the discharge of urban runoff to local waterways to the regional standard referred to below. The strategy to control contaminant levels will rely, in part, on the implementation of BMPs. Typical urban runoff BMPs include retention and detention ponds, permanent ponds with established wetland vegetation,

TABLE 3.3-3
PROJECTED CONSTITUENT CONCENTRATIONS FOR NCRSP RUNOFF

Constituent	Wet Season Concentration (Mu)	Dry Season Concentration (UG/L)
Sediment (c)	130,000	13,000
Hydrocarbons (c)	10,000	10,000
BOD (a)	12,000	12,00
COD (a)	90,000	90,000
Total N (a)	3,300	3,300
Total P (a)	460	460
Arsenic (b)	1.6	9.2
Cadmium (b)	2.8	0.7
Chromium (b)	66.0	15.0
Copper (a,b)	34.0	20.0
Lead (a,b)	144.0	9.0
Mercury (b)	1.2	0.4
Nickel (b)	50.0	43.0
Silver (b)	3.0	3.0
Zinc (a,b)	160.0	280.0
Polynucleic Aromatics (b)	10,000	1,000

¹ Wet and dry season contaminant concentrations are based on sampling data in the CVRWQCB report national NURP data, and data in the MWCOG report "Controlling Urban Runoff." Sources for each value are indicated by the footnotes below.

a = average of national NURP sampling

b = CVRWQCB report on Sacramento Urban Runoff

c = Washington D.C. NURP sampling.

² Loadings are discharge volume x concentration.

SOURCE: Balance Hydrologics, 1989.

infiltration trenches, filter strips, and grassed swales. These BMPs are generally passive in their operation and, therefore, function without routine direct management, although some periodic maintenance may be required.

The City of Roseville Department of Public Works, in coordination with the Central Valley Regional Water Quality Control Board (RWQCB), will develop guidelines for the incorporation of BMPs into the designs of individual projects proposed for the NCRSP area. Compliance with these guidelines, as determined by the DPW, will be required prior to project approval by the City.

3.3-10 *Monitor the effectiveness of proposed pollution control measures. (Mitigation Implementation Responsibility: City of Roseville)*

It will be necessary to implement a water quality monitoring program to assess the effectiveness of proposed mitigation measures. This program will serve to establish baseline water quality conditions in the NCRSP watersheds and will monitor the effects of Plan area runoff on surface water quality.

As part of the Mitigation Monitoring Plan for this EIR, a surface water quality monitoring program will be implemented which will require seasonal sampling and analysis of waters taken from watercourses throughout the Plan area. Should analysis results indicate that the established guidelines are ineffective in the control of urban contaminants (according to standards set in the recently revised RWQCB Basin Plan), the guidelines will be modified to incorporate more effective measures of control.

⌘ Short-term degradation of surface water quality in South Branch Pleasant Grove Creek resulting from the installation of the proposed offsite sewer trunk extension

The principal water quality impact would be the erosion or deposition of silt and sediment into the creek along the pipeline's route. This would primarily occur during the project's construction phase, although the unwise management of trench spoils could have long-term siltation effects on the creek. Erosion caused by the constriction of temporary access roads may also contribute to this problem. The precise location of these roads is generally difficult to control and although the alignment of the proposed sewer line itself would be accurately established, access road locations would have a tendency to change frequently on a linear project such as this. This would increase the difficulties of managing the potential environmental effects, such as vegetation loss and increased erosion potential.

It is assumed that most construction would be above the groundwater table. Some trenching activities, particularly in or near the stream channel, however, may encounter areas of perched groundwater and will likely require dewatering. Discharge of pumped water can be made into the creek bed downstream of the crossing site without significant impact if the creek is not actively flowing.

Equipment refueling and maintenance should be performed well away from the creek's edge throughout the construction process. Spilled fuels can be easily washed into the creek or mixed with bank soils if these operations are performed near the creek channel. Containment of these substances should be made a high priority within the project's construction specifications.

The potential exists for *significant impacts* on water quality in South Branch Pleasant Grove Creek as a result of new sewer line placement and removal of old sewer lines.

Mitigation Measures

Implementation of mitigation measures shown in the Geology Section of this EIR and Mitigation Measures 3.3-12 and 3.3-13 will reduce impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.3-11 *None identified.*

Mitigation Measures Recommended by the EIR

3.3-12 *Comply with all DFG streambed alteration permit requirements. (Mitigation Implementation Responsibility: City of Roseville, DFG)*

These requirements could include the following stipulations:

- ✧ Any stream work and construction activity within the 100-year floodplain may require additional measures or restrictions by DFG and/or the City of Roseville.
- ✧ No heavy equipment shall be operated in a live moving stream.
- ✧ Any excavation or dredging at the site of cofferdams or temporary structures in the stream shall be restored to original ground/streambed surface.
- ✧ Use of soil or earthen material shall be avoided where possible in the construction of temporary stream crossings/cofferdams.

Design and construction of these temporary structures will be accomplished in accordance with department of Fish and Game requirements as specified in the Streambed Alteration Agreement for the proposed project.

- ✧ Materials and water from excavation activities within the dewatered stream area shall not be discharged directly into live streams but shall be pumped to settling areas.
- ✧ Any water passing through a cofferdam shall be released back into the stream unless it has a high sedimentation load, in which

- ✧ Any water passing through a cofferdam shall be released back into the stream unless it has a high sedimentation load, in which case it shall be pumped to settling areas as defined above.
- ✧ Settling ponds shall be cleaned when they have reached 50 percent of their sediment storage capacity and sediment shall be disposed of behind a protective berm well above the average winter flows of stream.
- ✧ During trench excavation, top soil shall be set aside so as to make feasible the replacement of these soils to the surface of the disturbed trench route.

3.3-13 *Implement preventive measures to minimize construction-related erosion impacts if construction period exceeds one year. (Mitigation Implementation Responsibility: City of Roseville, DFG)*

Since the proposed project may require more than one summer work season to complete, some disturbed construction sites may be subject to one winter season before full restoration will be initiated. The following preventive measures will be used to minimize erosion problems if this occurs.

- ✧ The City and the project engineer will strategically layout the construction program and schedule so as to minimize the disturbed area that must remain through the winter season.
- ✧ Construction roads shall have water bars and culverts if required to remain through the winter season.
- ✧ Rock energy dissipaters will be used at the outflow point of any culverts.
- ✧ A prewinterizing (onsite) meeting will be scheduled in early September to ensure that all contractors and parties understand their responsibilities concerning preparing the site for the winter season. Any new potential erosion problems will be identified at that time.
- ✧ As a follow-up to the prewinterizing meeting, a specific schedule of inspection and maintenance on the construction site will be identified by the City to ensure erosion control measures are operative through the winter period. A copy of this schedule will be forwarded to DFG for the file on the project.
- ✧ All disturbed areas that are not actively being developed be planted, mulched, or otherwise protected by an acceptable means for the duration of the winter.

⌘ **Potential water quality degradation resulting from a failure of the completed sewer line and release of sewage into South Branch Pleasant Grove Creek**

Installation of a new sewer line would increase the long-term potential for wastewater spills, and surface and groundwater contamination, especially along the creek alignment. This risk can be largely controlled through proper design and construction of the pipeline. Pipe materials should be selected that are resistant to corrosion or deterioration within the soils found in the project area. Trench excavation and backfill should be carefully performed to ensure the stability of the completed line and leakage tests should be used to verify the integrity of the entire system. Catastrophic failures, such as a major, flood-induced bank collapse along a creek after the line is placed in service, cannot be prevented. However, the resulting wastewater discharge from a ruptured pipe should be of short duration, and would generally coincide with extraordinary flood flows that will help dilute the pollution impacts. This is considered a **less-than-significant impact**.

Mitigation Measures

Mitigation Measures Identified in the Specific Plan

3.3-14 *None identified.*

Mitigation Measures Recommended by the EIR

3.3-15 *None required.*

3.4 VEGETATION AND WILDLIFE

SETTING

Historically, the major land use within the Plan area has been low-intensity grazing. Due to the underlying geologic and soils conditions, few trees and only sparse grasses existed within the area. The most notable stands of trees, both historically and at present, are adjacent to Antelope Creek in the extreme southeastern portion of the Plan area. Both the number and size of the trees in this area are presently less than was the case prior to human occupation, as many of the larger trees have been removed, and grazing has prevented the natural regrowth cycle.

As shown in Figure 3.4-1, there are three major vegetation associations within the Plan area. These are: annual grassland, oak woodland/riparian forest, and seasonal wetlands.

Vegetation

Annual Grassland

The annual grassland vegetation association covers more than 95 percent of the plan area. The current condition of the grassland community has been partially maintained throughout the region by grazing, burning, and related agricultural activities. Also, unusually shallow soils have resulted in a grass cover which is sparse to extremely sparse over much of the site.

Prior to European influence, numerous native grass species occurred throughout the Central Valley. Settlement of the region brought with it cattle and sheep grazing and a demand for hardier varieties of European grasses. Because of their inability to compete with the imported grasses, most native species were replaced by the hardier European varieties. Common grassland species which occur in the Plan area today include wild oat (*Avena* sp.), wild barley (*Hordeum* sp.), brome grass (*Bromus* sp.), and tarweed (*Holocarpha virgata*).

Oak Woodland/Riparian Forest

The oak woodland/riparian forest vegetation type is confined to the margin of Antelope Creek in the extreme southeastern portion of the Plan area (Figure 3.3-5). A few blue oaks are scattered on the southern Plan area boundary just north of the Diamond Oaks Golf Course.

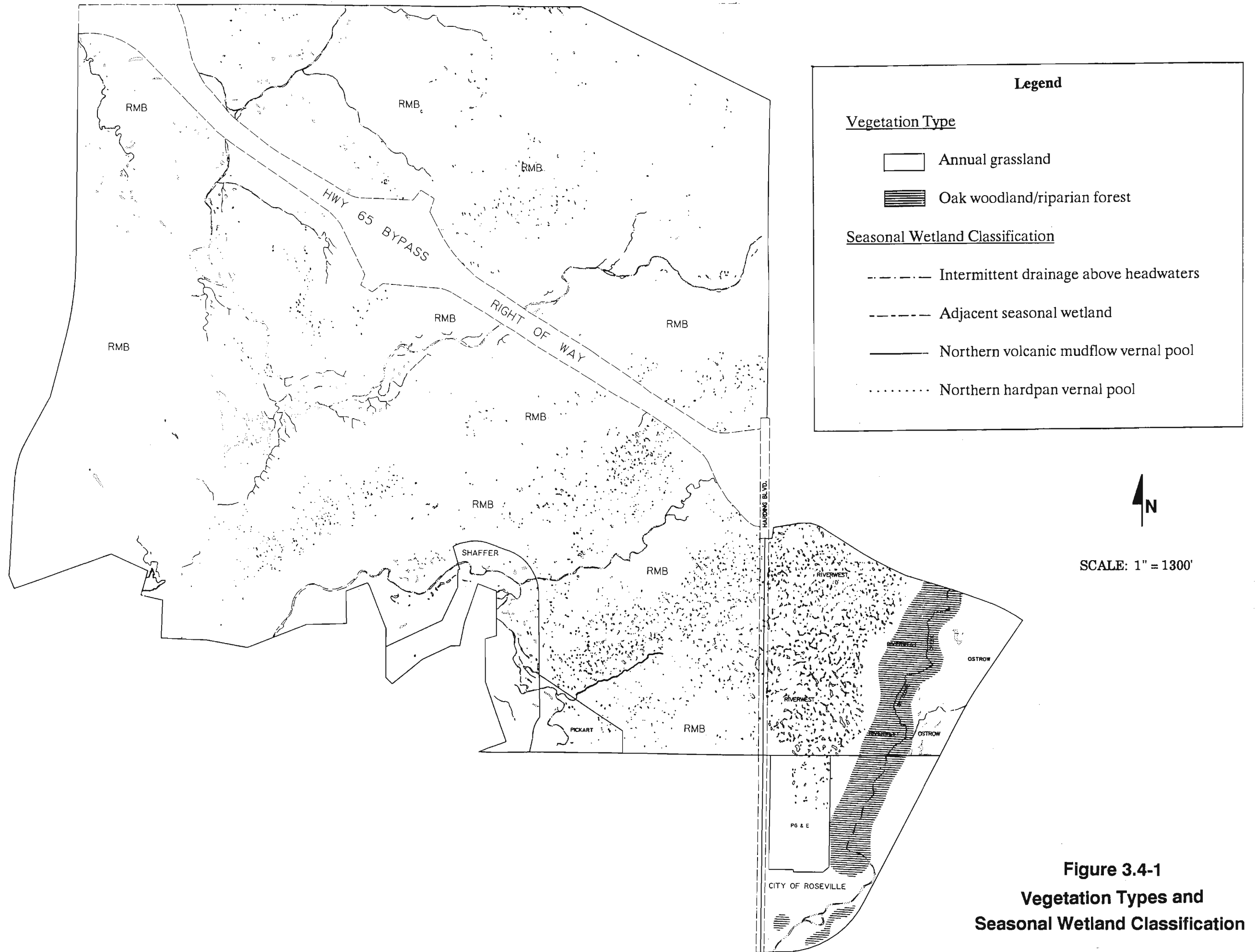


Figure 3.4-1
Vegetation Types and
Seasonal Wetland Classification

In some areas bordering Antelope Creek, the oak woodland is dense with a closed canopy. The tree density gradually decreases with increasing distance from the creek's edge, yielding to larger, more fully developed trees, and finally to open grassland.

The oak woodland is dominated by blue oak (*Quercus douglasii*), interior live oak (*Q. wislizenii*), and to a lesser degree Valley oak (*Q. lobata*), many in excess of 30 feet in height. In addition to the native oaks, digger pine (*Pinus sabiniana*), Fremont's cottonwood (*Populus fremontii*), buckeye (*Aesculus californica*), and other species common to the area are found in this association.

The majority of the trees near Antelope Creek exceed 12 inches dbh (diameter breast height, measured 48 inches above the ground), with a disproportionate number of trees in excess of 20 inches dbh. As is typical throughout the region, the oak woodland area within the Plan area has been subjected to extensive grazing and, consequently, is relatively open with minimal understory and middlestory growth, including limited evidence of oak regeneration.

Brush species which do occur include buckbrush (*Ceanothus cuneatus*), coffeeberry (*Rhamnus californica*), poison oak (*Toxicodendron diversilobum*), and yerba santa (*Eriodictyon californicum*).

Antelope Creek, a perennial stream, flows southeast within the Plan area, just inside the eastern boundary (Figure 3.3-2). A riparian oak wetland with emergent species and understory grasses, is located on the slopes and floodplain adjacent to the creek. Riparian corridors and their associated creeks typically provide habitat for a wide variety of wildlife species, including passerine birds, waterfowl, raptors, mammals, amphibians, reptiles, and anadromous fish. A total of 0.76 acres of this vegetation type occur along the eastern border of the Plan area.

Seasonal Wetlands

Wetlands are potentially subject to regulation by the U.S. Army Corps of Engineers under the provisions of Section 404 of the Clean Water Act. In order to determine the nature and extent of wetland and related resources which occur within the boundaries of the Plan area, site investigations were conducted by Dr. Laurence Stromberg, consulting plant ecologist, and Sugnet and Associates, environmental consultants. The results of these studies are summarized in this section and reported more fully in Appendix E of this document. Based on the results of this investigation, some projects within the Plan area will be subject to the Section 404 process. The Section 404 process is entirely a federal process, with no direct connection to the CEQA requirements under which this EIR is written.

As shown in Figure 3.4-1, wetlands cover less than five percent of the Plan area. Seasonal wetland types that occur in the Plan area include: 1) intermittent drainages, 2) adjacent seasonal wetlands, and 3) vernal pools. Also, as indicated in Figure 3.4-1, much of the area mapped as grassland has a secondary association with volcanic mudflow vernal pools.

Each wetland type shown on Figure 3.4-1 is briefly described below:

Intermittent Drainages

A system of intermittent channels drains the property from east to west (Figure 3.3-2). Channels are typically one to ten feet wide, devoid of vegetation, and often flow over exposed substrate on the Mehrten formation. Channels carry runoff during winter storm events, but are dry for most of the year. Plant species diversity and wildlife habitat values are typically low. A total of 8.3 acres of this type occur in the Plan area.

Adjacent Seasonal Wetlands

Closely associated with the intermittent drainage channels are seasonally wet swales that meet wetland parameters within drainage floodplains. Dominant plant species are coyote thistle (*Eryngium vaseyi*), annual hairgrass (*Deschampsia danthonioides*), goldfields (*Lasthenia chrysostoma*), tarweed (*Holocarpha virgata*), Fitch's spikeweed (*Hemizonia fitchii*), and various Mediterranean annuals. Soils are typically of the Inks series, with a hardpan at approximately 12 to 24 inches. An organic layer occurs above a sandy loam or sandy clay loam. Swales are poorly drained, with bottom elevations remaining saturated during wet winter months. Plant species diversity and wildlife habitat values are typically low. A total of 1.395 acres of this vegetation type occur in the Plan area at lower watershed positions.

Vernal Pools

Vernal pools are small, hardpan-floored depressions in valley grassland mosaics that fill with water during wet winter months. As indicated in the Western Ecological Services Company (WESCO) and Holland report of 1982, vernal pools within the Plan area are not unique or of higher value when compared to others which are widely distributed throughout South Placer County. Two types of vernal pools can be found within the Specific Plan area: volcanic mudflow vernal pools and northern hardpan vernal pools. These two types of pools are discussed more fully below. The water regime of a vernal pool is seasonal, generally involving recharge during the winter and spring seasons, then relying on stores of water into the spring, eventually drying up again until the winter season. Individual pools vary significantly, both in the length of time they remain wet and in plant species diversity. Many native plant species have adapted to the unique pool habitat and the seasonal availability of water and, as such, are limited in their distribution to areas which contain vernal pools. Disturbance of areas around vernal pools or interruption of their seasonal water regime can result in loss of the plants which naturally occur in the pools, or even in the destruction of the pools themselves.

Vernal pools are considered unique due to their limited natural occurrence and distribution. Once common throughout the margins of the Central Valley, it is estimated that vernal pools have been reduced to less than 12 percent of their original abundance, due primarily to agricultural activity.

In 1982, the City of Roseville retained WESCO to complete an inventory and evaluation of vernal pool resources in the City, and adopted measures to ensure protection and preservation of vernal pool resources as part of the General Plan. Since preparation of the WESCO study, more detailed inventories of vernal pool resources have been performed in areas proposed for development.¹

Plan area vernal pools are located along lower watersheds and on relatively flat volcanic formations. Common vernal pool plant species observed in the Plan area include: mesa mint (*Pogogyne* sp.), popcorn flower (*Plagiobothrys stipitata*), navarretia (*Navarretia leucocephala*), toad rush (*Juncus bufonius*), goldfields (*Lasthenia chrysostoma*), coyote thistle (*Eryngium vaseyi*), hairgrass (*Deschampsia danthonioides*), and woolly marbles (*Psilocarphus* sp.). Three plant species of special concern have been identified in vernal pools within the Plan area. These include Bogg's Lake hedge hyssop (*Gratiola heterosepala*), dwarf downingia (*Downingia humilis*), and vernal pool brodiaea (*Dichelostemma lacune-vernalis*). Bogg's Lake hedge hyssop, known to occur in the most easterly portion of the Plan area, is recognized as an endangered species by the California Department of Fish and Game (CDFG). The remaining two species, dwarf downingia and vernal pool brodiaea, are included on the California Native Plant Society (CNPS) List 4.

Volcanic Mudflow Vernal Pools

These pools occur in shallow concave depressions on Mehrten mudflow formations where slope is generally less than two percent. A total of 13.691 acres of volcanic mudflow vernal pools are scattered throughout the Plan area in upper watershed positions. Plant species diversity of individual pools varies considerably throughout the Specific Plan area. As many as 19 and as few as one species have been found in NCRSP area pools, with pools in the eastern portion of the Plan area generally exhibiting the highest diversity. A list of vernal pool plant species known to occur within the Plan area is located in Appendix F.

Northern Hardpan Vernal Pools

Northern hardpan vernal pools occur primarily on Inks and Cometa soils, which are found at lower watershed positions along creek floodplains. Pools are located within depressions in areas of mounded topography. Vernal pool species are typically confined to pool bottoms, while seasonal "swale" species occur within pool margins, grading eventually into upland vegetation. A total of 4.8 acres of this type of vernal pool was mapped within the Plan area.

Rare and Endangered Plants

The California Department of Fish and Game maintains the California Natural Diversity Data Base (CNDDB) which includes known locations of plant and animal species which are officially listed (state and federal) as endangered, rare, and threatened, plus those species considered by the scientific community to be deserving of such listing. The CNDDB incorporates the 1984 Inventory of Rare and Endangered Vascular Plants of California compiled by the CNPS. Sensitive vernal

pool species found within the Plan area are listed in Table 3.4-1. As indicated in the table, special plants have been assigned a Rarity-Endangerment-Distribution (R-E-D) code. The R-E-D code was created by the CNPS in order to evaluate more accurately the status of individual plant species throughout the State.

As previously discussed, three vernal pool plant species of special concern were identified as occurring within the Plan area; these included Bogg's Lake hedge hyssop (*Gratiola heterosepala*, CDFG endangered), vernal pool brodiaea (*Dichelostemma lacune-vernalis*, CNPS List 4), and dwarf downingia (*Downingia humilis*, CNPS List 4).

Wildlife Habitat Values

Grassland/Seasonal Wetland

The composition of the natural plant communities within the plan area is a critical determinate of wildlife species which reside in the vicinity. Due to the extreme soil and water conditions, and past grazing practices, the grassland vegetation which covers the majority of the site is scrubby and sparse, and affords minimal wildlife cover or food value. Similarly, the impervious shallow soils of the area are not conducive to supporting large populations of ground-dwelling mammals. Consequently, the relative absence of small mammals in the area would discourage extensive use of the area as hunting ground by larger mammals or raptors.

Although the grassland portion of the North Central Plan area may not constitute relatively high-quality wildlife habitat, numerous species will traverse the site, or utilize it for occasional hunting along with other more productive areas in the vicinity. The occurrence of vernal pools could contribute to or enhance overall wildlife values by providing areas of water. However, given the vegetative characteristics of the site, the seasonality of the water, the small size and shallowness of the pools, and the paucity of vegetative cover, the overall wildlife values are judged to be minimal.

Wildlife species likely to frequent the grassland/seasonal wetland habitat on a year-round basis include:

Mammals: broad-footed mole (*Scapanus latimanus*), coyote (*Canis latrans*); San Joaquin pocket mouse (*Perognathus inornatus*); striped skunk (*Mephitis mephitis*); Western harvest mouse (*Reithrodontomys megalotis*); blacktailed jackrabbit (*Lepus californicus*); California ground squirrel (*Citellus beecheyi*); pocket gopher (*Thomomys bottae*); deer mouse (*Peromyscus maniculatus*); house mouse (*Mus musculus*); and badger (*Taxidea taxus*).

TABLE 3.4-1

VERNAL POOL PLANT SPECIES OF SPECIAL CONCERN
IN THE NORTH CENTRAL SPECIFIC PLAN AREA

Species	Federal Status	State Status	CNPS Status	R-E-D Code
Bogg's Lake hedge hyssop (<i>Gratiola heterosepala</i>)	C2	E	1b	3-3-2
Dwarf downingia (<i>Downingia humilis</i>)	C3c	-	4	1-2-3
Vernal pool brodiaea (<i>Dichelostemma lacuna-vernalis</i>)	-	-	4	1-1-3

Plant Status Listing Categories

Federal Status - C1 species which are candidates for federal listing but which have not been listed; C2 species for which data regarding distribution or threat is inadequate to support listing; C3c species are too widespread and/or not seriously enough threatened to support listing.

State Status - E indicates that the species is listed by the state as endangered.

CNPS Status - List 1b species are considered rare and endangered in California and elsewhere; List 4 species are on the "watch list" and are of sufficiently limited distribution to warrant continued monitoring.

R-E-D Classification System:

R (Rarity)

1. Rare, but found in sufficient numbers and distributed widely enough that extinction or extirpation is low at this time.
2. Occurrence confined to several populations or to one extended population.
3. Occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom reported.

E (Endangerment)

1. Not endangered
2. Endangered in a portion of its range
3. Endangered throughout its range

D (Distribution)

1. More or less widespread outside of California
 2. Rare outside of California
 3. Endemic to California
-

Birds: ring-necked pheasant (*Phasianus colchicus*); kestrel (*Falco sparverius*); common barn owl (*Tyto alba*); burrowing owl (*Athene cunicularia*); short-eared owl (*Asio flammeus*); rufous-crowned sparrow (*Aimophila ruficeps*); lark sparrow (*Chondestes grammacus*); red-winged blackbird (*Agelaius phoeniceus*); and western meadowlark (*Sturnella neglecta*).

Reptiles and Amphibians: western toad (*Bufo boreas*); western spadefoot toad (*Scaphiopus hammondi*); gopher snake (*Pituophis eatenifer*); common king snake (*Lampropeltis getulus*); western garter snake (*Thamnophis elegans*); Pacific treefrog (*Hyla regilla*); bullfrog (*Rana catesbiana*); slender salamander (*Batrachoseps* sp.); racer (*Coluber constrictor*); and western rattlesnake (*Crotalus viridis*).

The above species list was compiled from data base printouts obtained from the California Department of Fish and Game's Wildlife Habitat Relationship Program (WHR data base). For a more complete listing, refer to Appendix G.

In addition to the aforementioned wildlife species which can occur in this habitat on a year-round basis, vernal pools could be expected to attract migratory bird species for varying periods of the year. However, use of the pools by waterfowl and shorebirds was found to be minimal based on field observations during the winters of 1988 and 1989. During approximately 92 field visits, through the end of March 1989, a total of 12 wetland-dependent bird species were identified on the site ("Seasonal Bird Use Study," John Ranlett, Sugnet and Associates, 1989). Based on field observations conducted for other projects elsewhere in the Roseville/Lincoln area, it appears the value of the NCRSP area vernal pools as habitats for wetland dependent wildlife is low. Generally, vernal pools represent a type of seasonal wetland which could provide resting and feeding areas for birds migrating through the region. Typically, most species arrive in the area in early winter; some species stay for short periods before continuing southward, while others remain until late spring when they return northward for the summer nesting season. However, many species, such as the common mallard and cinnamon teal, nest in the vicinity and raise a brood prior to departing in the spring.

Riparian Habitat

Valley-foothill riparian habitat can be found within the southeast corner of the Plan area, straddling both sides of Antelope Creek. This relatively narrow corridor contains typical riparian vegetation, including cottonwood (*Populus fremontii*), Valley oak (*Quercus lobata*), and sycamore (*Platanus racemosa*) in the canopy, with willow (*Salix* spp.), black walnut (*Juglans hindsii*), and California buckeye (*Aesculus californica*) in the understory. The riparian corridor along Antelope Creek is bordered by a relatively dense mixed oak woodland, which gradually becomes less dense upslope.

Valley-foothill riparian habitats provide food, water, migration, and dispersal corridors, and escape, nesting, and thermal cover for an abundance of wildlife. (Mayer and Laudenslayer, 1988). As many as 50 amphibians and reptiles, 147 bird species, and 55 species of mammals are known to use California's Central Valley

riparian communities (Brode and Bury 1985; Layman 1985; and Trapp et al. 1985). Many are permanent residents, while others are transient or temporal visitors. Some of the more common year-round wildlife species which one could expect to find using the riparian habitats along Antelope Creek include:

Mammals: mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), opossum (*Didelphis marsupialis*), California myotis (*Myotis californicus*), big brown bat (*Eptesicus fuscus*), western gray squirrel (*Sciurus griseus*), brush mouse (*Peromyscus boylii*), ringtail (*Bassariscus astutus*), long-tailed weasel (*Mustela frenata*), spotted skunk (*Spilogale putorius*), and striped skunk (*Mephitis mephitis*).

Birds: red-tailed hawk (*Buteo jamaicensis*), California quail (*Lophortyx californicus*), mourning dove (*Zenaida macroura*), white crowned sparrow (*Zonotrichia leucophrys*), Anna's hummingbird (*Calypte anna*), scrub jay (*Aphelocoma coerulescens*), mockingbird (*Mimus polyglottos*), turkey vulture (*Cathartes aura*), black-shouldered kite (*Elanus caeruleus*), turkey (*Meleagris gallopavo*), barn owl (*Tyto alba*), western screech owl (*Otus kennicottii*), great horned owl (*Bubo virginianus*), northern pygmy owl (*Glaucidium gnoma*), long-eared owl (*Asio otus*), acorn woodpecker (*Melanerpes formicivorus*), Nuttall's woodpecker (*Picoides nuttallii*), downy woodpecker (*Picoides pubescens*), northern flicker (*Colaptes auratus*), yellow-billed magpie (*Pica nuttalli*), plain titmouse (*Parus inornatus*), bushtit (*Psaltiriparus minimus*), white-breasted nuthatch (*Sitta carolinensis*), Bewick's wren (*Thryomanes bewickii*), American robin (*Turdus migratorius*), wren (*Chamaea fasciata*), phainopepla (*Phainopepla nitens*), European starling (*Sturnus vulgaris*), rufous-sided towhee (*Pipilo erythrophthalmus*), brain-headed cowbird (*Molothrus ater*), house finch (*Carpodacus mexicanus*), lesser goldfinch (*Carduelis psaltria*), and American goldfinch (*Carduelis tristis*).

Reptiles and Amphibians: alligator lizard (*Gerrhonotus multicarinatus*), arboreal salamander (*Aneides lugubris*), gopher snake (*Pituophis eatenifer*), common king snake (*Lampropeltis getulus*), western garter snake (*Thamnophis elegans*), skinks (*Eumeces* sp.), western fence lizard (*Sceloporus occidentalis*), slender salamander (*Batrachoseps* sp.), ringneck snake (*Diadophis punctatus*), racer (*Coluber constrictor*), terrestrial garter snake (*Thamnophis elegans*), western rattlesnake (*Crotalus viridis*), and aquatic garter snake (*Thamnophis couchii*).

Fisheries Resources

Sampling of local fish populations has been conducted by the California Department of Fish and Game and, more recently, by Jones & Stokes Associates in conjunction with preparation of the Northeast Roseville Specific Plan EIR. Common species identified in area waterways include Sacramento squawfish (*Ptychocheilus grandis*), bluegill (*Lepomis machrochirus*), green sunfish (*L. cyanellus*), Sacramento perch (*Archoplites interruptus*), and brown bullhead (*Ictalurus nebulosus*). Due to the intermittent character of most watercourses within the Plan area, fisheries on the site are limited. Some of the more common species, particularly various species of minnows (*Cyprinidae*) and mosquito fish (*Gambusia affinis*), are likely to occur

seasonally within the Plan area. However, the limited seasonal flow coupled with the shallow nature of the channels affords minimal habitat for the larger species, which commonly exist in the more stable aquatic environments downstream of the site. Antelope Creek is the only perennial watercourse within the Plan area.

In addition to several of the warmwater fish species already mentioned, Antelope Creek also supports a population of migratory chinook salmon (*Oncorhynchus tshawytscha*) and a resident species of trout (*Salmo gairdneri*) (F. Meyer, personal communication, 1989). DFG personnel have found "spawned out" salmon carcasses as far as two miles north of Roseville along Antelope Creek indicating that spawning habitat for salmon exists within and/or upstream from the Plan area (Ibid.). Since salmon migrate and spawn in Antelope Creek, any project-related modifications to the stream channel will constitute a potential impact on a significant fishery resource. As such, these modifications will require a Streambed Alteration Permit from DFG.

Vernal Pool-Dependent Invertebrates

With the exception of the Delta green ground beetle (*Elaphrus viridis*) (classified by USFWS as threatened), no invertebrate species associated with vernal pool habitat is classified as rare, threatened, or endangered by the USFWS, and no species is included on candidate lists for future consideration. The Delta green ground beetle is presently known to occur only in Solano County in conjunction with large vernal pools on Pescadero soils. No beetles have been reported in the Sacramento region, and the type of pools which occur in the Roseville area are not consistent with the known habitat of the beetle.

Predominant invertebrates which occur in vernal pools include crustaceans and insects. Common crustaceans which have been reported include fairy shrimp, water fleas, clam shrimp, seed shrimp, and rotifers. Similarly, numerous types of insects are supported by vernal pool habitat. The predominant insects identified in vernal pools include dragonflies, water beetles, mosquitoes, mayflies, water bugs, water boatman, water striders, and back swimmers.

Rare and Endangered Wildlife

The tiger salamander (*Ambystoma tigrinum*) is a California species of special concern and a candidate for federal protection. The species reproduces in vernal pools during the spring, with larval development occurring in the pools. However, adult salamanders spend the majority of their lives in underground burrows and cannot be surveyed except during a brief period when they migrate to the surface to breed. This period typically occurs in early winter. Identification of salamander larvae in vernal pools during the spring would be indicative of the species presence; however, an adult salamander survey during the mating period would be required to determine the extent of salamander populations on the site or in the vicinity.

A spring survey of vernal pools was conducted for larvae by a wildlife biologist who specializes in tiger salamanders, and no evidence of their presence was found within the Plan area. Because the vernal pools in the Plan area represented the suspected salamander habitat, the findings of the tiger salamander survey are included in the Stromberg vernal pool assessment.

No rare or endangered wildlife species are known to inhabit the project site. The ranges of the bald eagle and American peregrine falcon, both endangered species, include the Sacramento Valley region. No falcons have been reported in the vicinity of the project site. Bald eagles have been reported in the area surrounding Folsom Lake, approximately six miles east of the Plan area. The Cooper's hawk (*Accipiter cooperi*) is on the California Fish and Game list of Species of Special Concern. Although no evidence of Cooper's hawks has been reported within the Plan area, there are known nesting sites within the City of Roseville, and the birds have been sighted in the Plan area vicinity. It is likely that Cooper's hawks hunt in the Plan area.

The Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) has been reported to occur in isolated areas throughout the Sacramento region. The valley elderberry longhorn beetle is an invertebrate species listed as threatened by the Federal Government (U.S. Fish and Wildlife Service 1984). This beetle reproduces only in stands of blue elderberry (*Sambucus cerulea*). Elderberry requires a moist environment in which to grow, and reported occurrences of the beetle have been in stands of elderberry along the American and Sacramento Rivers. The dry conditions which are prevalent throughout the Plan area are not supportive of elderberry growth, and field survey of the riparian corridor bordering Antelope Creek failed to identify any elderberry bushes.

IMPACTS AND MITIGATION MEASURES

✱ Elimination or degradation of annual grassland habitat

As previously noted, approximately 95 percent of the project area currently contains annual grassland habitat, much of which is secondarily associated with vernal pools. This habitat provides relatively limited forage and cover to grassland wildlife species due to both underlying soils and geologic conditions and past grazing practices.

Development of the Plan area will result in a considerable reduction in the total onsite acreage of this habitat type and substantial disruptions to the existing natural communities which occur in these areas. Planned construction of roads, homes, businesses, parking lots, schools, and other structures will eliminate large areas of natural grassland. Remaining grasslands will be associated primarily with proposed areas of open space and vernal pool preserves. The value of these areas as wildlife habitat will be reduced due to the fragmenting of surrounding development.

Due to the relatively limited value of Plan area grasslands to wildlife, and because this habitat type is not, at present, locally or regionally scarce, elimination of annual grassland as a result of Plan development is considered to be a *less-than-significant impact*.

Mitigation Measures

Mitigation Measures Identified in the Specific Plan

3.4-1 *None identified.*

Mitigation Measures Recommended by the EIR

3.4-2 *None required.*

⌘ **Potential disturbance of oak woodland in southeast portion of the Plan area**

Mixed oak woodland found on slopes in the Plan area adjacent to Antelope Creek, occur on land designated for regional commercial development. This type of development could potentially eliminate portions of the habitat and disrupt the integrity of a relatively contiguous woodland which extends from Highway 65 to the PG&E transmission line corridor south of the Plan area. The California Fish and Game Commission has found that "hardwood, especially oaks and streamside hardwoods comprising riparian habitat are extremely important to the fish and wildlife resources of California" (Addenda: California Fish and Game Code 1988). This impact is considered to be a *significant impact*.

Mitigation Measures

Implementation of Mitigation Measures 3.4-3 through 3.4-5 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.4-3 *Adhere to Specific Plan oak woodland policy 6.2.1, policies 1-20.*

Mitigation Measures Recommended by the EIR

3.4-4 *Removal of trees on the project site, as well as protection and preservation of remaining trees will be accomplished in strict accordance with all provisions of the Draft Roseville Tree Preservation Ordinance as approved by the Roseville Planning Commission or any such ordinance as enacted (see Appendix J). (Mitigation Implementation Responsibility: City, Developer)*

3.4-5 *Delineate and fence areas to be avoided within oak woodland and designated access corridors to these areas. (Mitigation Implementation Responsibility: Developer, Contractor)*

Construction equipment operation and materials storage will be restricted to designated construction areas in order to keep heavy equipment operation, traffic, or other human activity in oak woodland areas along Antelope Creek to an absolute minimum. This would be

done in an effort to limit disturbances to nesting bird species in the area, burrowing wildlife, soil conditions, understory vegetation, and wildlife associated with this vegetation.

✱ **Disruption of riparian area/vegetation**

Construction of roadways or other facilities and structures within the riparian area could serve to disrupt wildlife access along Antelope and to degrade the value of existing vegetation as habitat. This impact is considered to be *significant*.

Mitigation Measures

Implementation of Mitigation Measures 3.4-6 through 3.4-9 will reduce impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.4-6 *Implement policy 6.2.1.19 of the Specific Plan concerning conducting a spring raptor survey prior to any tree removal onsite.*

If an active raptor nest is located in any tree slated for removal, that removal will be cancelled or postponed until the young have "fledged" and the nest is determined to be inactive.

Mitigation Measures Recommended in the EIR

3.4-7 *Prohibit construction within 100 feet, or other distances as determined by City staff to protect creek environment, of the banks of Antelope Creek. (Mitigation Implementation Responsibility: DFG, City, Developer)*

This is done in accordance with DFG recommendations to maintain the habitat value and continuity of riparian areas immediately adjacent to Antelope Creek. This continuity is essential to riparian wildlife which use areas adjacent to the streams as a migration corridor as well as for nesting and cover. In some locations, this may include areas outside of the designated 100-year floodplain and not slated for protection within designated lower watershed preserve areas. Areas for which streambed alteration agreements with DFG have been made are exempt from this restriction.

In order for construction to occur within this area, it would be necessary that a specific project application be preceded by a delineation and mapping of areas essential to maintaining the creek environment. This mapping could be used as a basis for determining project specific requirements for setbacks or mitigation.

3.4-8 *Minimize construction of stream crossings on Antelope Creek to provide reasonable access to developed areas west and east of the creek. (Mitigation Implementation Responsibility: DFG, City of Roseville)*

DFG Stream Alteration Agreements will be obtained prior to the construction of any proposed Antelope Creek crossings in the NCRSP. All conditions of compliance set forth in these agreements will be strictly enforced as part of the mitigation monitoring program included as part of this EIR.

- 3.4-9 *Prohibit construction access roads to cross Antelope Creek, except as necessary to accommodate construction of proposed stream overcrossing(s). (Mitigation Implementation Responsibility: DFG)*

⌘ **Potential disturbance to Antelope Creek fish habitat**

Planned development within the Antelope Creek watershed may affect the productivity of Chinook salmon which migrate and spawn in the perennial stream. Increased stream turbidity and degradation of spawning gravels may result from increased soil erosion from instream construction and construction within the watershed. Instream obstacles resulting from the construction of proposed stream crossings may hinder upstream migration of adult spawners and outmigration of salmon young. Each of these potential effects on an anadromous fishery constitutes a *significant impact* under CEQA.

Mitigation Measures

Implementation of Mitigation Measures 3.4-11 through 3.4-18 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

- 3.4-10 *None identified.*

Mitigation Measures Recommended by the EIR

- 3.4-11 *Implement mitigation measures presented in the Geology section of the EIR. (Mitigation Implementation Responsibility: See Geology section)*

- 3.4-12 *Restrict all grading, site preparation, and construction work in or on the banks of Antelope Creek to the period of June 1 through September 30. (Mitigation Implementation Responsibility: DFG, City, Developer)*

This will minimize erosion and impacts on the October-November spawning run and April-May outmigration of chinook salmon.

- 3.4-13 *Prohibit heavy equipment in live streams. (Mitigation Implementation Responsibility: DFG, City, Contractor)*

- 3.4-14 *Construct coffer-dams (generally of geotextile material, sandbanks, and culverts). (Mitigation Implementation Responsibility: DFG, City, Contractor)*

Such construction will provide an adequate "dewatered" area for construction while minimizing impacts to the stream environment.

3.4-15 *Employ proper construction methods for stream crossing including an initial layer (approximately 18 inches) of clean gravel to allow for a clean removal of the crossing at the conclusion of construction. (Mitigation Implementation Responsibility: DFG, City, Contractor)*

3.4-16 *Hydroseed areas adjacent to the finished roadbed which were disturbed during construction to promote revegetation and reduce erosion potential. (Mitigation Implementation Responsibility: City, Contractor)*

3.4-17 *Photograph streambed and bank contours prior to the start of stream overcrossing and Coffey Dam construction. (Mitigation Implementation Responsibility: DFG, City, Contractor)*

Following construction, streambed and bank contours will be restored, as near as possible, to pre-project conditions.

3.4-18. *Set aside topsoil for later use in revegetation and recontouring efforts during grading prior to road construction. (Mitigation Implementation Responsibility: City, Contractor)*

⌘ **Disruption of intermittent drainages and associated seasonal wetlands**

Construction within or near these tributaries and alteration of their watersheds, may result in the reduction of flows to existing vernal pools, reduction in the quality of those flows, isolation of pools, and the reduction of opportunities to exchange reproductive materials necessary to support pool plants and animals, and the reduction of seasonal wetland vegetation which is supported by flows within these drainages.

The NCRSP contains provisions to protect primary drainages. For example, 88 percent of the total adjacent seasonal wetlands in the Plan area are preserved within the lower watershed preserve (parcels 80 to 88, Figure 1-3). In addition, significant realignment and channelization of intermittent drainage channels is prohibited under the Plan. Ninety-four percent of the primary intermittent channel acreage is protected within lower watershed and park/preserve area. Any construction within the 100-year floodplain of these drainages could require a DFG streambed alteration agreement and may be subject to agreement conditions designed to protect watercourse resources. These measures will hold impacts on intermittent drainage resources associated with Plan development to a *potentially significant* level.

Mitigation Measures

Mitigation Measures Identified in the Specific Plan

3.4-19 *Implement the protection and preservation measures discussed in Section 6.1 of the Specific Plan.*

Mitigation Measures Recommended by the EIR

3.4-20 *There are no additional mitigation measures recommended by the EIR.*

⌘ **Loss or disruption of vernal pool resources.**

Previously, vernal pools were thought to be limited in their distribution throughout California, occurring primarily in the northern Central Valley and in some areas along the southern and central coastline. However, recent evidence suggests a much wider distribution. Vernal pools have also been found in the southern Central Valley (Paul Sugnet, personal communication, 1989) and in some foothill regions (Brian Hoffmann, personal communication, 1989). While some debate occurs over the extent of their distribution, most scientists agree that vernal pools have been heavily impacted by agriculture and urban development in California.

The vernal pools located in the NCRSP area are not unique in the Sacramento Region or the Plan area vicinity (WESCO and Holland, 1982). The state-listed endangered Bogg's Lake hedge hyssop (*Gratiola heterosepala*) does occur in several pools within parcel 36, but is not found elsewhere in the Plan area. The majority of pools with the highest diversity of species and density in the NCRSP area are located in the southeast portion of the Plan area.

Impacts to vernal pools could result from a variety of actions including: direct loss through filling, alteration of hydrologic regime through disruption of micro-watersheds and streamflow, and decreases in water quality due to sedimentation and urban contaminants. Any one of these factors alone, or in combination, could eliminate or reduce the botanic viability, alter species composition and density, or reduce species diversity.

Regulatory Issues

There are state and federal policies and regulations pertaining to disruption of wetlands.

The DFG policy states that compensation for loss of wetland habitat must be on an acre-for-acre basis. Mitigation for habitat values lost to the implementation of a project should be accomplished "in-kind" and "on-site" whenever possible. The objective of the "in-kind, on-site" mitigation is to duplicate the physical nature of the wetland area to be negatively impacted within or adjacent to a project site. This mitigation technique, if properly applied, will assure that habitat derived from wetland creation is essentially identical to that which is lost to development; will concentrate on benefitting those fish and wildlife species and local populations adversely impacted by development; and will provide a greater degree of certainty that the benefits provided by the impacted wetland to associated plant and animal communities in the project vicinity are retained.

The status of the wetlands which exist on the site with respect to federal regulations (Section 404 of the Clean Water Act) is currently being reviewed. The 404 process generally consists of: 1) wetlands delineation, 2) determination of COE jurisdiction,

3) application for permit, with mitigation planning. Permit alternatives can include no permit, a nationwide permit, or an individual permit. The permit requirements are based on ongoing negotiations with COE, but generally consist of the following types of mitigations: avoidance/preservation, onsite compensation (creation or enhancement), or offsite compensation (restoration, creation, enhancement, or preservation). The mitigation plans advanced by the applicants may be accepted, modified, or rejected by COE.

The U.S. Fish and Wildlife Service classifies seasonal wetlands under USFWS Resource Category 2. Category 2 habitat is considered to be of "high value for evaluation species and is relatively scarce or becoming scarce on a national basis or in the eco-region section." The goal in Category 2 is "no net loss of in-kind habitat value." General guidelines for mitigation are as follows:

- ✧ Avoid the impact.
- ✧ Minimize the impact.
- ✧ Rectify the impact.
- ✧ Reduce or eliminate the impact over time.
- ✧ Compensate for impacts.

No determination has been reached concerning the Specific Plan area with respect to COE or USFWS requirements. However, the Specific Plan and individual applicants within the Plan area have proposed site specific mitigations and seek compliance with COE regulations.

Specific Plan

The Specific Plan includes the following features:

- ✧ As shown in Specific Plan Figure C4, a total of 66.4 acres of vernal pool preserves (parcels 87, 91, 93) are proposed to protect a cluster of high-quality mudflow pools on the RMB property.
- ✧ 62 percent of the total northern hardpan pool acreage for the plan area was preserved in the 86.7 acres of lower watershed preserves to account for pool distribution adjacent to intermittent stream channels. (parcels 80 - 88, Specific Plan Figure 2-3)
- ✧ 88 percent of the total adjacent seasonal wetlands acreage for the Plan area was preserved in the lower watershed preserve. (parcels 80 through 87, Specific Plan Figure 2-3)
- ✧ Significant realignment and channelization of intermittent drainage channels was eliminated. Ninety-four percent of intermittent channel acreage is protected within lower watershed preserve areas. (parcels 80-84, 86, 87, 90 and 91, Specific Plan Figure 2-3)

RMB Proposal

In addition to the preservation policies included in the Specific Plan, the RMB policies also include creation of new wetland systems to be accomplished within designated preserves. Two basic strategies will be employed. When feasible, water will be impounded in existing swale depressions by placement of check dams to form outlet barriers. Where check dams cannot be used effectively, depressions will be formed by excavation. The use of check dams is preferred because site disturbance is minimized. When excavation is required, spoil will be spread to form gentle contours and seeded. Pools will be monitored by qualified biologists for a minimum of five years to assure that prescribed criteria for vegetation, wildlife, and hydrology are met.

As of this writing, new vernal pools have been developed on the RMB property. These new pools have been monitored and compared with existing pools on site for one full growing season (1988-89). The monitoring indicates that hydrologic regimes for three pairs of pools are similar. Also, vegetation monitoring of newly created vernal pools conducted in April, 1989 indicates that vernal pool plant species are now dominant in swales inundated as a result of check-dam construction. In general, after being inundated for one growing season, there is a shift from upland dominant vegetation to hydrophytic dominant species. Vernal pool plant species diversity ranges from 5 to 20 species per pool in newly developed pools (Paul Sugnet, personal communication, 1989) with plant species success criteria met in 93 percent of new pools after one growing season.

Parcel 36 Proposal

The parcel 36 mitigation consists of: 1) completion of a survey by the City of Roseville for sensitive species during the spring of 1989 in the area not previously examined by the owner, 2) preserving approximately 1.3 acres of pools onsite adjacent to the southern and eastern borders of the site, and 3) recreating 7.3 acres of vernal pools within this same 14.25-acre pool area to mitigate for the loss of an equal acreage of wetlands in the development area.

The area along Antelope Creek was examined for pool creation. It is not suitable for recreation of the development site pools as the soils are Fiddyment and Cometa loams and completely different from the Exchequer mudflow soils which support vernal pools on parcel 36.

The recreation program should create approximately 7.3 acres of pools, thereby providing for one-to-one replacement of pools lost to development. About 1.3 acres of existing pools can be preserved within the proposed pool area. These pools must be staked prior to any construction activities and monitored to ensure no impacts occur to pool values.

Under the proposed mitigation plan, stormwater flows from the development area would be used to inundate created and preserved pools. Flows would first enter a 2.0-acre sediment detention basin designed as a freshwater marsh in the northern

portion of the pool area. This marsh would also remove hydrocarbons and other pollutants. Flows will then pass out of the marsh and, as sheet flow, move south and west through the pool area before entering the creek.

The total pool area proposed equals about 14.25 acres. This area includes the preservation of 1.3 acres of existing pools, the creation of 7.3 acres of pools, the creation of 2.0 acres of freshwater marsh as a sediment detention basin, and the preservation of 3.65 acres of intervening upland. The upland will act as runoff areas and buffer. The boundaries of this pool area should be considered flexible. It would be preferable to modify the boundaries to include the locations of the downingia and hyssop found by Stromberg or other pools considered to be of high value while maintaining the same acreage and general location. Off-site mitigation is also being considered.

The impacts of the Specific Plan development are judged to be *significant adverse impacts*. The mitigation options presented below provide the City decision makers with information which clarifies the full range of measures available to minimize impacts.

General Mitigation Considerations

Avoidance

This consists of leaving the onsite wetland resources intact with no direct disturbance, and incorporates measures to ensure long-term viability such as buffers, fencing, and dedication of sufficient watershed acreage to maintain hydrologic integrity. However, if this policy were implemented throughout parcel 36, virtually no developable land would be left.

Creation

This concerns the establishment of new wetlands onsite to replace wetland acreage which has been filled or is anticipated to be filled. While evidence suggests that early attempts to create new vernal pools are, at least, initially successful, the long-term viability of created pools has not been established. The two techniques which have been used to date that have met with early success include: 1) shallow excavations in areas of hardpan or claypan soils and 2) check-dams within swales on areas of volcanic (Mehrten) mudflow.

With the first technique, excavations are usually shallow enough so that the integrity ("impermeableness") of the hardpan or claypan is maintained. Excavated pools are also typically seeded after construction, using materials removed from pools slated for filling. Seed can be removed from donor pools using either vacuuming, scraping, or sodding techniques.

The second technique involves a newer method for creating vernal pools in areas of Mehrten mudflows. Rather than altering the natural landscape, through excavation, this method relies on using small checkdams within existing swales. When properly placed and constructed, small pools will form behind the checkdam as a result of

backflooding. Pools can be artificially seeded as above, or natural seed dispersal agents can be relied on. Early evidence suggests that artificial seeding can result in a more rapid establishment of vernal pool plants; however, some natural establishment can occur via seed dispersal through the swale system.

Enhancement and Restoration

Typically, this consists of improvements to onsite wetlands with respect to their wildlife habitat values. Commonly used wetland enhancement and restoration techniques include: planting programs, buffer zone establishment, and protection of areas to allow the establishment or reestablishment of wetland vegetation.

Additional Considerations

While the above three mitigation options are used in mitigation planning, it is the opinion of the authors that some caution must be exercised when applying these mitigations to areas containing existing vernal pools. To the extent which is both possible and practicable, vernal pools should be avoided. When complete avoidance is not feasible, then vernal pools preserve sites should be selected and protected. This protection not only includes the avoidance of physical disturbances to the preserve sites, but also, preservation of the quantity and quality of water supplies to these areas which are necessary to maintain the unique characteristics of those sites. Means necessary to maintain the necessary quality and quantities of flows to vernal pool areas will be a consideration in 404 permitting process. If the creation of new vernal pools is being pursued as a means of compensation, this activity should be designed so as not to disrupt the integrity or viability of existing pools. In instances where developable acreage is at a premium and additional land is unavailable, it is suggested that pilot studies be initiated to determine if creation attempts within the preserve site(s) are both feasible and warranted. The creation of new vernal pools within the preserve as a form of compensation should not disrupt the viability of existing pools within the preserves. Detailed and thorough hydrologic analyses will need to be conducted to ensure that the inundation depth and period of both preserved and created pools remains similar and is comparable to precreation levels.

For pools created as compensation either within or outside of the preserves, an appropriate buffer should be provided either within or outside the preserves.

Mitigation Measures

Implementation of Mitigation Measures 3.4-21 through 3.4-24 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

- 3.4-21 *Implement policies identified in 6.1.3 Wetlands Avoidance and Preservation, policies 1-7 and 6.1.6 Vernal Pool Preserve Policies, policies 1-5.*

Mitigation Measures Recommended by the EIR

- 3.4-22 *Implement fully the 404 permit requirements which will be determined by state and federal agencies to be adequate and sufficient mitigation measures, thus compensating for the anticipated loss of vernal pools from proposed development. No net loss of wetland will be accepted. (Mitigation Implementation Responsibility: COE, Developer)*
- 3.4-23 *Implement both a short-term and long-term monitoring program to ensure the success of the agency-required mitigation measures. (Mitigation Implementation Responsibility: COE, Developer)*
- 3.4-24 *Consider off-site "mitigation banking" as an alternative to onsite mitigation measures to be used in the event that anticipated success rates for wetlands recreation and maintenance are not met. (Mitigation Implementation Responsibility: COE, Developer)*

❖ **Loss or disruption of state-listed endangered plant species.**

Several populations of the Bogg's Lake hedge hyssop (*Gratiola heterosepala*) occur in volcanic mudflow vernal pools located within the southeast portion of the Plan area on parcels 36 and 95. The wetlands mitigation plans proposed to date include retention of some of these pools within a vernal pool preserve site on parcel 95. However, this action alone will not preserve the onsite existence of this state-listed endangered plant species. The proposed plan to allow naturally treated stormwater to enter and inundate the vernal pool preserve site could threaten the viability and long-term existence of the Bogg's Lake hedge hyssop. The loss of Bogg's Lake hedge hyssop is a *potentially significant impact*.

Failure to effectively implement these measures will result in significant impacts to sensitive plant species.

Mitigation Measures

Implementation of Mitigation Measures 3.4-26 through 3.4-27 would reduce these impacts to less-than-significant levels.

Mitigation Measures Identified in the Specific Plan

- 3.4-25 *None identified.*

Mitigation Measures Recommended in the EIR

- 3.4-26 *Redesign the boundaries of the vernal pool preserve on parcel 95. (Mitigation Implementation Responsibility: COE, Developer)*

This redesignation would contain all of the pools recently (April 1989) identified by Dr. Laurence Stromberg as containing populations of the Bogg's Lake hedge hyssop.

- 3.4-27 *Create new vernal pools within parcel 95 as a form of compensation. (Mitigation Implementation Responsibility: COE, Developer)*

- 3.4-28 *Conduct detailed and thorough investigations so that proposed stormwater drainage and detention facilities on parcels 36 and 95 are properly designed and sized. (Mitigation Implementation Responsibility: COE, Developer)*

This is necessary to ensure that the quality and quantity of both surface and subsurface flows entering the preserve site are maintained and protected in order to meet all requirements to be determined by the U.S. Army Corps of Engineers as part of the 404 permitting process. In general, wet detention basins should be sized to retain up to a 10-year storm event, and they should be designed to allow for a minimum of a 14-day residence time to ensure adequate treatment of stormwater. Additional considerations should be given to application of other best management practices (BMPs). BMPs are commonly employed using a "treatment train" approach, which typically incorporates grassed swales and tandem settling ponds, in conjunction with the wet detention basins.

※ **Disturbance of riparian and stream channel habitat resulting from placement of the offsite sewer trunk extension along South Branch Pleasant Grove Creek.**

Installation of the proposed sewer line will disturb approximately 910 lineal feet of riparian and stream channel habitat along the South Branch Pleasant Grove Creek. This figure assumes that roughly 65 feet of stream bank will be disturbed on each side of the stream for each of the 14 stream crossings. Additional areas of stream and stream bank habitat may be further impacted due to requirements for construction access throughout the project corridor.

A Section 1601-03 (streambed alteration) Agreement must be obtained for all construction proposed within the 100-year floodplain of intermittent, as well as perennial, streams. This agreement provides a mechanism to identify existing riparian habitats, endangered species, and important fisheries' habitat that may be affected by the construction, and to recommend mitigation strategies designed for their protection. The construction process for the proposed sewer alignment is not expected to present serious problems that would prevent DFG approval.

trees which occur along the proposed sewer line route and which are at least 6 inches in diameter at breast height (dbh). Based on this survey, it is estimated that it will be necessary to remove 17 oak trees, primarily blue oaks, in order to accommodate placement of the new line. These trees have trunk diameters ranging from 6 to 32 inches dbh. Several other oaks near the construction corridor or access routes may also be damaged, possibly irreparably, as a result of soil compaction, improper trimming, or root damage associated with heavy equipment operation and trenching activities.

Riparian areas and surrounding oak woodland provide valuable habitat for a variety of wildlife. Construction activity including heavy equipment operation and the removal of trees and other vegetation may directly harm resident wildlife or disturb nesting activities, as well as reduce the value of woodland habitat to these species by reducing the amounts of available forage, cover, and nesting sites.

Construction related disturbances to the streambed and floodplain may result in increased sedimentation within South Branch Pleasant Grove Creek and a reduction in warmwater fishery habitat value both in, and downstream from, the project area.

Based on the above discussion, it is expected that unmitigated implementation of the sewer trunk extension would result in *significant environmental impacts* in the form of increased soil erosion, degradation of water quality, and harm to wildlife resulting from heavy equipment operation within oak woodland areas and the reduction of habitat value from project construction.

Mitigation Measures

Implementation of Mitigation Measures 3.4-29 through 3.4-35 should reduce the project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.4-29 *None identified.*

Mitigation Measures Recommended by the EIR

3.4-30 *Strict implementation of all conditions and requirements of the Section 1601-03 Streambed Alteration Agreement for the sewer line extension. (Mitigation Implementation Responsibility: DFG, City, Contractor)*

3.4-31 *Native oak trees within the project area which are not slated for removal will be protected per City ordinance. (Mitigation Implementation Responsibility: City, Contractor)*

All requirements and conditions outlined in the Tree Preservation and Protection Guidelines of the Draft Roseville Tree Preservation Ordinance, which are applicable to the proposed project will be met. These include but are not limited to:

- ✧ Oversight of all construction work by a licensed arborist;

- ✕ The use of light construction equipment when trenching within the dripline of a native oak; and
- ✕ The establishment and fencing of protected zones for oak tree preservation.

3.4-32 *An oak revegetation plan for this project should be developed and implemented by a qualified and licensed landscape contractor for the trees removed. (Mitigation Implementation Responsibility: City, Developer)*

3.4-33 *Oak trees removed as a result of project construction will be replaced on at least an "inch-for-inch" basis (referring to diameter). (Mitigation Implementation Responsibility: City, Developer)*

The primary goal of oak revegetation is to re-establish, at minimum, the number of oak trees that would be removed by project construction. The establishment of additional oaks for habitat improvement will be an added goal to compensate for the long-term loss of wildlife habitat values. The removal of mature acorn-producing oaks is not fully compensated by the replacement of young seedlings. There is a loss of wildlife habitat values between the time the oaks are removed and the new oaks mature. Consequently, the basic strategy to be used in this revegetation effort will be overplanting and added protection of existing seedlings to compensate for natural loss and mortality and long-term loss of habitat values.

Plantings will be done near the locations of proposed tree removals in areas determined to be suitable by the project arborist. These areas are located: just east of Foothill Boulevard; 1,600 to 2,400 feet west of Foothill Boulevard; and in between Diamond Oaks Drive and Diamond Oaks Golf Course. Trees will be planted in densities which approximate the density of trees in the immediate vicinity of the planting site.

3.4-34 *A spring raptor nest survey will be conducted by a qualified wildlife biologist before construction activities begin. If an active raptor nest is located in any tree slated for removal, that tree will not be removed until the young have fledged and the nest is determined (by the biologist) to be inactive. (Mitigation Implementation Responsibility: City, Developer, Contractor)*

3.4-35 *Access to and from areas of construction activity along the proposed sewer line will be restricted to designated access roads only. (Mitigation Implementation Responsibility: City, Contractor)*

The location of these roads will be designated at the project design phase. Any use of areas outside of the construction corridor and away from access routes will be actively discouraged by the project arborist.

VEGETATION AND WILDLIFE ENDNOTES

¹ Detailed and thorough investigations of vernal pools within the Plan area have been conducted by Paul Sugnet and Laurence P. Stromberg, Ph.D.; copies of both reports can be found in the Appendices. These recent studies were undertaken to: 1) evaluate and describe pools within the Plan area and 2) determine applicability of the federal Section 404 process.

3.5 GENERAL PLAN CONSISTENCY

The purpose of this section is to evaluate the consistency of the proposed North Central Roseville Specific Plan with the City of Roseville General Plan. California law requires that the Specific Plan be consistent with the General Plan. Policies are presented in this section in the order that the General Plan identifies them, separated into the respective General Plan elements.

Growth Management Element

Growth Management Element Policy 1

Potential population growth in Roseville must be based on the long term carry capacities of the roadway system, calculated by Level of Service "C," sewer and water treatment facilities, and electrical utility service, as defined in the Circulation and Public Services and Facilities Element.

Consistent

Providers of public utilities have indicated an ability and willingness to extend services to the Specific Plan area. Roadway mitigation improvements have been identified which are predicted to provide the required LOS. The project is not predicted to create traffic conditions less than LOS C with implementation of mitigation measures.

Growth Management Element Policy 2

For purposes of land use allocation, the potential population of Roseville, based on infrastructure limits, must not exceed 92,000 people.

Consistent

Population predictions are derived from the number of dwellings. The Specific Plan includes a total number of dwellings consistent with that specified by the General Plan. The General Plan allocates dwellings based on the number expected to support an ultimate population of 91,500 people.

Growth Management Element Policy 3

Growth and development must occur at a rate commensurate with the availability of desired facilities capacity and the attainment of a desired level of service for public activities as defined in the Public Services and Facilities Element.

Consistent

The proposed phasing plan mandates the placement of adequate public services prior to development within the phase. No phasing is proposed which would require development prior to the availability of services. The City retains the ability to review individual projects and regulate the development rate of the Specific Plan area.

Growth Management Element Policy 4

Growth must occur in a manner that makes efficient use of the land, but recognizes the need to preserve environmentally sensitive areas.

Consistent

A fundamental objective of the Specific Plan is to develop a coordinated and efficient proposal for development of the Plan area. The Plan includes policies and measures to ensure that environmentally sensitive areas, such as oak woodlands, wetlands, and floodplains, will be preserved.

Growth Management Element Policy 5

Growth must provide a strong diversified economic base and a balance between new employment and affordable housing opportunities.

Consistent

The North Central Roseville Specific Plan, although containing both residential and employment-producing land uses, will produce more jobs than there will be employable residents for. This is in keeping with the overall predicted situation within the City, which forecasts a future excess of jobs over employable residents. Potential solutions to this situation are: 1) actual buildout, either by the market or by future land use changes, will not cause the situation to occur; or 2) buildout within commuting distance will provide the needed residential areas, even though the needed land use designations are not currently in place. Should the latter occur, the growth would be, at least in part, a growth induced by the City land use policies.

Growth Management Element Policy 6

Growth and development must occur in such a manner that projected revenues shall be sufficient to meet public costs.

Consistent

The fiscal report prepared for the Specific Plan indicates that a net positive fiscal impact is predicted with development of the Plan area.

Growth Management Element Policy 7

Because of common concerns and problems, growth and development must be viewed on a regional perspective by coordinating activities with adjacent jurisdictions.

Consistent

The City of Roseville is a member of the South Placer Policy Committee and the Sacramento Area Council of Governments (SACOG). In accordance with CEQA guidelines, this document has been made available for comment to adjacent municipalities.

Growth Management Element Policy 8

To preserve the integrity of planning efforts, the City of Roseville and Placer County must formally adopt a policy relating to the development within the City's sphere of influence and to maintain the County's policy of non-urban development.

Consistent

The North Central Roseville Specific Plan is consistent with this policy because the NCRSP allocates land uses already identified in the General Plan, and does not propose development beyond the municipal boundary. It is recognized that development within the City, including the Plan area, will provide a catalyst for development outside of the City and, consequently, a coordinated plan for such development is the subject of this policy.

Growth Management Element Policy 9

To allow flexibility in meeting the goals of the General Plan, a portion of the urban development capacity must be kept in reserve for density bonuses, development incentives, and Specific Plan implementation.

Consistent

The Specific Plan includes 718.9 acres of area designated as urban reserve.

Growth Management Element Policy 10

Growth management techniques to be used in addition to existing methods will be:

1. Monitoring of development activity, public service levels, facilities, capacities, revenues, and public costs;
2. Using development zones for monitoring the capacity of growth;

3. Preparing an annual report on the findings of growth, level of service and facilities capacities to be reviewed concurrently with the City budget;
4. Using specific plans for new growth areas;
5. Establishing an urban limit line beyond which urban development will not be considered;
6. Indicating annually the allocation of resources for each land use category;
7. Implementing a point scale evaluation system to supplement normal project review processing.

Consistent

Preparation of the Specific Plan is consistent with item (4) of this policy and does not conflict with implementation of the remaining items of this policy.

Land Use Element

Land Use Element Policy 1

To provide sufficient affordable housing in conjunction with anticipated employment, the allocation of an additional 12,000 dwelling units, citywide, shall be at an average density of not less than 6 dwelling units per acre or not to exceed a maximum of an additional 2000 acres of residential land use.

Consistent

Citywide distribution of these dwellings resulted in allocation of 5,000 additional dwellings to the portion of the City encompassed by the Northwest Roseville Specific Plan and the North Central Roseville Specific Plan. The North Central Specific Plan as proposed is consistent with this policy.

Land Use Element Policy 2

To provide the basic commercial goods and services for an ultimate population of 92,000, a maximum of 2,000 acres shall be allocated for commercial land use.

Consistent

The North Central Roseville Specific Plan proposes to develop approximately 277 acres of commercial and regional commercial land uses. This total includes 208 acres designated as regional commercial and 69 acres designated as commercial. These figures, combined with existing commercial and approved commercial acreage in other Specific Plan areas, are within the 2,000-acre maximum established for the City.

Land Use Element Policy 2-a

Establish a separate land use category for business and professional office land use, and establish a profile of the type and intensity of uses to be permitted.

Consistent

The Specific Plan designates 144 acres for business professional development.

Land Use Element Policy 3

To maintain an equilibrium between jobs and housing, the total amount of industrial land use and potential total employment shall be reduced or maintained by either:

1. Placing acreage in a long-term industrial reserve, not to be considered for development for 10 years; and/or,
2. Replacing industrial land use with residential land use; and/or,
3. Reducing the overall intensity levels for industrial land use; and/or,
4. Not rezoning additional properties for industrial land use.

Consistent

The Specific Plan land use proposals are consistent with overall General Plan land use which, if fully implemented as now proposed, is anticipated to result in an excess of jobs over employable residents within the City, but not within an 8-mile commute radius of the Plan area. Continued monitoring by the City and action as described in the policy will be required to achieve this goal. The monitoring required to implement this policy must be on a citywide basis, so determination of consistency must be on the basis of citywide action. Any potential inconsistency is addressed in the Wade Associates jobs/housing study included in the Technical Appendices of this document.

Land Use Element Policy 4

The allocation of land use shall not occur unless public facility needs have been thoroughly calculated and the mechanism for implementation of such facilities has been determined. However, the City may grant land use to a property owner or owners if it is determined to be in the public interest and if such land use commitment is contingent upon the property owners guaranteeing to provide a fair and equitable share of public facilities costs that is yet to be determined.

Consistent

The Specific Plan calculates the public facility needs for the Plan area and includes policies which specify that necessary assessment districts and funding mechanisms will be established prior to development. As specified by City policy, the Specific Plan clearly indicates that future development is not guaranteed by adoption of the Specific Plan, but rather contingent upon property owners guaranteeing to provide a fair and equitable share of public facilities costs that are yet to be determined.

Land Use Element Policy 5

The method of guaranteeing land use in return for some public improvements shall be done by either formal development agreement at the time land use is adopted, as part of the adoption of a specific plan, or as a conditional action on adopting land use that requires a formal development agreement prior to the adoption of zoning.

Consistent

A formal development agreement will be required prior to the adoption of zoning.

Land Use Element Policy 6

Urban land use on the Mehrten formations shall be limited to nonresidential activities or high-density residential use in which normal landscaping amenities can be provided.

Consistent

The portions of the plan proposed for lower density residential land uses have been the subject of a preliminary geological reconnaissance which indicates that this section of the Mehrten mudflow is composed of older, softer, and more decomposed materials interspersed with alluvial deposits which render these areas less subject to the limitations referred to in this policy. Therefore, with appropriate mitigation, the land uses proposed can be consistent with this policy.

Land Use Element Policy 7

The City should include as part of the Land Use Plan, designated vernal pool sites, or portions of sites that coincide with designated sites (Nos. 1, 2, 7, 17, 19, 20, 22, and 24) as shown on the exhibit map Vernal Pool Resources, Inventory and Evaluation, City of Roseville, prepared by Western Ecological Services Company, August 31, 1982, on file in the Roseville Planning Department.

Consistent

A more detailed and accurate inventory of vernal pool resources than that performed by WESCO has been completed within the Plan area. The Specific Plan includes policies and a program to provide preservation of vernal pool resources consistent with this policy.

Land Use Element Policy 8

Unsurveyed vernal pool sites shall be analyzed as part of any land use, zoning or development plan applications. These sites are designated as Nos. 1, 2, 7, 17, 19, 20, 22, and 24, as shown on the exhibit map, Vernal Pool Resources, Inventory and Evaluation, City of Roseville, prepared by Western Ecological Services Company, August 31, 1982, on file in the Roseville Planning Department.

Consistent

All vernal pool sites located within the Plan area have been surveyed.

Land Use Element Policy 9

Preliminary allocation of additional residential units, according to development area, shall be as follows:

North Area	5,000 units
West Area	500 units
Central Area	500 units
East Area	5,000 units

One-thousand units will be held in reserve for future density bonuses allocation. Adjustments to this allocation scheme may occur when the Land Use Plan is considered and after review of the General Plan Environmental Impact Report.

Consistent

The North Central Roseville Specific Plan includes a proportionate share of the additional residential units allocated by the General Plan.

Land Use Element Policy 10

Preliminary allocation of additional residential units by density average, according to development area, shall be as follows:

- ⌘ North Area
 - Average of 10 dwelling units per acre - minimum 3,000 units
 - Average of 15 dwelling units per acre - minimum 2,000 units
- ⌘ West Area and Central Area
 - Average of 6 dwelling units per acre - maximum 1,000 units
- ⌘ East Area
 - Average of 3 dwelling units per acre - maximum 1,000 units
 - Average of 10 dwelling units per acre - maximum 2,000 units
 - Average of 15 dwelling units per acre - minimum 2,000 units

One-thousand units will be held in reserve for future density bonuses allocation.

Consistent

The proposed North Central Specific Plan and the Northwest Specific Plan land use allocations are consistent with this policy.

Land Use Element Policy 11

For the purpose of allocating residential land use, total allowable dwelling units shall not exceed 34,700, or 12,000 above the current adopted General Plan.

Consistent

The North Central Roseville Specific Plan includes 4,408 dwelling units which are part of the 12,000 unit 1985 General Plan allocation.

Land Use Element Policy 12

The number of residential units in projects that developed below adopted density levels must be calculated, and the excess units made available to new development if traffic circulation is not adversely affected.

Consistent

This can be implemented by staff as individual projects are proposed.

Land Use Element Policy 13

Residential land use with the average of 3 dwelling units per acre shall be located in accordance with the following general criteria:

1. Not adjacent to heavy industrial areas;
2. Not adjacent to intensive commercial development unless appropriately buffered;
3. Not adjacent to freeways or railroads; and
4. Not adjacent to arterial roadways unless appropriate noise attenuation can be implemented.

Consistent

The North Central Roseville Specific Plan has been designed consistent with the General Plan and includes buffering along major arterials (including use of landscape setbacks and soundwalls) and development of standards for commercial or office use adjacent to residential uses.

Land Use Element Policy 14

Residential land use with an average of 10 dwelling units per acre shall be located in accordance with the following general criteria:

1. Adjacent to or as part of a low-density mixed development if in a predominantly undeveloped area;
2. Not in a predominantly established single-family residential area unless as an infill project adjacent to a major arterial roadway; and
3. Adjacent to higher density developments, serving as a transition to lower density projects.

Consistent

Residential land use within the Plan as proposed is consistent with this policy.

Land Use Element Policy 15

Residential land use with an average of 15 dwelling units per acre shall be located in accordance with the following general criteria:

1. Only along arterial roadways, providing appropriate sound attenuation can be implemented;

2. Adjacent to commercial areas where possible;
3. Adjacent to residential density range of 6 to 9 dwelling units per acres or as a part of a mixed development or specific plan that is preplanned;
4. Not adjacent to single-family residential unless appropriate design controls are associated with the zoning; and
5. Adjacent to freeways only if appropriate noise attenuation and site design can be implemented.

Consistent

High density residential areas are located in accordance with this policy. As required by the Element, those units proposed to be located adjacent to arterial roadways will incorporate noise reduction measures into specific projects prior to approval.

Land Use Element Policy 16

Commercial land uses shall consist primarily of those activities that involve retail trade and services and, secondarily of business-professional office uses.

Consistent

The Specific Plan recognizes commercial and business-professional land uses as separate land uses, and appropriately identifies nonresidential land uses as commercial or business-professional sites. In addition to these land use designations, the Plan identifies locations where a combination of these land uses is expected to be commercial and business-professional.

Land Use Element Policy 17

Commercial land uses shall be located in accordance with the following general criteria:

1. Adjacent to arterial roadways and, if possible, adjacent to intersections of arterial roadways or at the intersection of an arterial roadway and collector street;
2. Commercial land uses located in predominantly residential areas or in close proximity to residential areas shall consist primarily of retail activities;
3. Commercial land use sites located in predominantly residential areas shall be a minimum of 10 acres in size and shall, when possible, include a retail food market;

4. Intensive commercial uses, serving other than local residential neighborhoods, shall be located on sites of over 10 acres where surrounding land use is predominantly nonresidential (except for high-density residential);
5. Continuous commercial development along arterial roadways (where development does not currently exist) shall be prohibited unless such development is part of a specific development plan that coordinates use and design with adjacent properties, minimizes access to arterial roadways, and maintains aesthetic standards of the Scenic Highway Element.

Consistent

The proposed Specific Plan commercial land uses are consistent with this policy.

Land Use Element Policy 18

Designate the Old Town Historic District and the Oak Street/Vernon Street area as possible redevelopment areas and proceed with the necessary studies to make such a determination.

Consistent

This policy is not applicable to the NCRSP because the plan does not include any areas within the Old Town Historic District or in the Oak Street/Vernon Street area. Similarly, the NCRSP is consistent with this policy because it does not introduce any measures or land uses which conflict with this policy.

Land Use Element Policy 19

An employee density of 20 per acre shall not be exceeded for any individual development projects, and an average employee density of 10 per acre shall be maintained for all projects combined in the general industrial land use. A maximum average employee density for light industrial land use shall only be imposed if cumulative development indicates that future utility, roadway, housing, or public service capacities will be exceeded.

Consistent

Commercial and business-professional land uses within the Plan area will comply with this policy. Individual projects will be subject to staff review as they are proposed.

Land Use Element Policy 20

The Light Industrial Development Guidelines shall be modified so that permitted uses will not include retail commercial uses or business, administration, and professional office uses.

Consistent

This policy will be implemented by development agreement, use permit, or other means as appropriate at the time of each project approval.

Land Use Element Policy 21

The number and location of public elementary and secondary school facilities shall be in accordance with the following general criteria:

1. Elementary schools shall be located to serve neighborhoods, and secondary schools shall be centralized to serve a larger population;
2. Elementary school sites under this criteria of site selection should be ten net acres and planned cooperatively with the City Parks and Recreation Department. The actual school site may be less than ten acres when the total school/park site equals or exceeds ten acres;
3. Secondary intermediate school sites would be 15 to 20 net acres depending upon educational programs and planned cooperatively with the City Parks and Recreation Department. The actual school site may be less than 15 acres when the total school/park site equals or exceeds 15 acres. High school sites should be 40 to 45 net acres;
4. Schools should be located in an area that is safe and easily accessible, away from major street arterials;
5. Elementary schools should be master planned to accommodate approximately 400 to 600 students, depending upon the educational program;
6. Secondary intermediate schools should be master planned to accommodate approximately 600 to 850 students, depending upon the educational program;
7. Size, capacity, and number of buildings for initial construction shall be determined by each individual district's enrollments, both current and anticipated. Changes and/or additions may result from district revisions regarding pupil/teacher ratios and other related variables.

Consistent

The proposed school sites and facilities are consistent with the requirements of both school districts and with this policy.

Land Use Element Policy 23

Because of acreage required, the number of new school sites needed at the high school level, the specific site location, and standards shall be determined through the coordination of the City and the Roseville High School District as part of the present and ongoing planning and approval process.

Consistent

The Roseville High School District was consulted in development of the Specific Plan. No high school is included within the Plan area.

Land Use Element Policy 24

A land use category shall be created for designating areas as open space where development cannot or shall not occur because of physical, cultural, or historical qualities. Use of such property may be public or private.

Consistent

Section 2.9, Open Space and Public Land Use, and Section 6, the Resources Management Element, identify open space in accordance with this policy.

Land Use Element Policy 25

All lands subject to flooding, according to the most accurate and current data, shall be designated as a floodway land use, and where there is no conflict with any reasonable and environmentally acceptable urban land use, such areas shall be designated as open space. Periodic review of conditions and data shall be made, and boundaries shall be modified if necessary.

Consistent

Floodways are designated within the Plan area in accordance with this policy.

Land Use Element Policy 26

An Urban Reserve land use designation shall be used for all lands where future urban expansion may occur, but where such urban expansion development cannot take place in the immediate future because of unavailable utility lines, utility capacities, roadways, or public services.

Consistent

Urban Reserve areas are designated within the Specific Plan area in accordance with this policy.

Housing Element

Housing Element Policy 1

Roseville will work to accommodate the housing needs of its current and future residents by providing a range of purchase and rental units affordable to all income groups and to guarantee affordability over time through the adoption of policies and implementation of action plans listed in the Housing Element.

The City's policy to provide housing affordable to all income groups is a social objective and as such it is the responsibility of all segments of the Roseville community to actively work together to achieve the goal. There are three main community groups who should be participating in affordable housing programs:

- ✱ City of Roseville
- ✱ Development Community
- ✱ Business/Manufacturing Community

Consistent

The Specific Plan includes policies in support of the Citywide affordable housing program. Consistent with this program, 10 percent of the housing in the Plan area will be developed as affordable housing.

Housing Element Policy 2

The City should try to maintain an overall vacancy rate of 5 percent for both owner-occupied and rental units. This figure represents a general measuring device used by the state to determine whether a jurisdiction has sufficient housing available to meet demand.

Consistent

Designation of 4408 residential units within the Plan area will help to provide an adequate supply of housing in the City.

Housing Element Policy 3

Both affordable rental and ownership opportunities will be made available to the very low/low income households; however, the emphasis will be on rental units as they offer the most cost effective way to provide affordable housing opportunities.

Existing and new federal and state subsidies shall be continuously sought for both the construction of new rental/housing and subsidizing existing units affordable to the very low/low income households.

Households with moderate incomes are not currently having their purchase housing needs met. Consequently, the City will pursue federal, state housing programs, and local initiatives to provide affordable purchase housing for this group.

Consistent

The Specific Plan includes policies which directly support the affordable housing program being developed by the City. Consistent with this program, 10 percent of the housing in the Plan area will be developed as affordable housing.

Housing Element Policy 4

Units affordable to low income households should be designed and constructed so they are comparable to market rate units. These affordable units should be intermixed and blended in with market rate units so they are not immediately noticeable as being set aside for low income households.

Encourage the production of high density multi-family units, both rental and purchase, to meet the needs of very low, low, and moderate income groups.

Consistent

The Specific Plan includes policies which support the Affordable Housing Program established by the City. Consistent with this program, 10 percent of the housing included in the Specific Plan will be available for participation on the affordable housing program.

Housing Element Policy 5

The City will adopt an achievable affordable housing goal based on existing and expected fiscal and political realities. The City recognizes such a goal may fall short of the projected affordable housing need, but believes this is preferable to setting a goal based on a need which cannot be met.

Through 1991, the City has established as its maximum Affordable Housing Goal that 10 percent of all new residential construction in the Specific Plan areas and infill areas of the City be affordable to very low/low income households. The Affordable Housing Goal is intended to be flexible in recognition that the actual number of affordable units constructed depends on the level of state, federal, and local funding. As the City attempts to apply the Affordable Housing Goal to new residential construction, the percentage and number of affordable units produced may be less than the maximum 10 percent goal; reflecting the state, federal, and local subsidies

which can be assembled at a given point in time. The 10 percent goal is not intended to be used as an Inclusionary Zoning Program whereby the property owner is required to shoulder the entire responsibility of producing the affordable housing.

Consistent

The Specific Plan includes policies which support the Affordable Housing Program being established by the City. Consistent with this program, 10 percent of the housing included in the Specific Plan will be available for participation on the affordable housing program.

Housing Element Policy 6

In order to achieve the 10 percent Affordable Housing Goal, the City will attempt to supplement current subsidies by applying for all new state/federal programs and creating new City programs/funding sources.

Consistent

The Specific Plan includes policies which support the Affordable Housing Program being established by the City. Consistent with this program, 10 percent of the housing included in the Specific Plan will be available for participation on the affordable housing program.

Housing Element Policy 7

The City will attempt to meet the housing needs of its existing residents through government rental assistance and encourage the construction of rental units affordable to the low/very low income.

Consistent

The Specific Plan includes policies which support the Affordable Housing Program being established by the City. Consistent with this program, 10 percent of the housing included in the Specific Plan will be available for participation on the affordable housing program.

Housing Element Policy 8

Provide low income, handicapped and elderly renter households housing assistance through direct rental subsidies and below market rate financing through governmental programs for the construction of affordable rental units adapted to their needs.

Continue the City's housing rehabilitation loan and grant program for the low income, elderly and handicapped, both for owner-occupied and rental properties, financed through the federal, state and city government.

Investigate the possibility of creating a home equity conversion program (reverse annuity mortgage) in conjunction with local financial institutions to allow elderly homeowners a method of extracting the equity out of their homes to allow them to make repairs and supplement their income.

Consistent

The Specific Plan includes policies which support the Affordable Housing Program being established by the City. Consistent with this program, 10 percent of the housing included in the Specific Plan will be available for participation on the affordable housing program.

Housing Element Policy 9

Encourage the construction of 3+ bedroom units in multifamily rental complexes to help meet the housing needs of the low-income large families.

Consistent

This policy requires action by the City. The Specific Plan includes policies which support the Affordable Housing Program being established by the City. The number of bedrooms for individual dwelling units must be a consideration for approval of individual project subsequent to adoption of the Specific Plan.

Housing Element Policy 10

The City will attempt to meet the housing needs of female head of households which earn income placing them in very low/low income categories through government funded rental assistance and encourage the construction of rental units affordable to very low-low income households.

Consistent

The Specific Plan includes policies which support the Affordable Housing Program being established by the City. Consistent with this program, 10 percent of the housing included in the Specific Plan will be available for participation on the affordable housing program.

This policy requires action by the City. The Specific Plan includes policies which support the Affordable Housing Program being established by the City. The affordability of housing for female heads of households in the very low/low income categories must be considered by the City in conjunction with the implementation of the Affordable Housing Program.

Housing Element Policy 11

In order to preserve, maintain and improve its supply of older housing units, the City shall continue its Housing Rehabilitation Program and expand its area of operation into other planning areas.

Consistent

Because the NCRSP includes previously undeveloped area, there are no older units which would be subject to the Housing Rehabilitation Plan, and consequently, this policy is not applicable to the NCRSP. The NCRSP is consistent with this policy because it does not introduce any measures or land uses which conflict with this policy.

Housing Element Policy 12

The City will prohibit the conversion of rental units to condominiums unless the City's rental vacancy rate reaches 5 percent or until a formal condominium conversion ordinance is adopted by the City Council.

Consistent

Because the NCRSP includes previously undeveloped area, there are no residential units proposed for conversion to condominiums, and consequently, this policy is not applicable to the NCRSP. The NCRSP is consistent with this policy because it does not introduce any measures or land uses which conflict with this policy.

Housing Element Policy 13

In order to minimize tenant displacement and to maintain a supply of affordable housing, the City shall consider an ordinance limiting the number of residential conversions to office space on an annual basis. The ordinance will carry a provision which allows conversion if replacement housing is provided to any low-income tenant, who would be displaced by the action.

Consistent

Because the NCRSP includes previously undeveloped area, there are no residential units proposed for conversion to office space, and consequently, this policy is not applicable to the NCRSP. The NCRSP is consistent with this policy because it does not introduce any measures or land uses which conflict with this policy.

Housing Element Policy 14

The City will investigate the feasibility of establishing redevelopment areas and pursuing all sources of funding, private and public, to provide financing for the repair and upgrading of these areas.

Consistent

The City is pursuing the establishment of a redevelopment agreement on a portion of the Plan area.

Housing Element Policy 15

An affordable housing development agreement shall be required under the following circumstances:

- ✱ Whenever the land use or zoning on a property is changed from nonresidential to residential or the residential unit density is increased.
- ✱ Whenever a density bonus is granted or other locally controlled programs are used to assist a residential project in creating units affordable to very low/low income households.

Consistent

This policy relates to changes in land use or zoning from nonresidential to residential and with the granting of density bonuses. Neither of these items is proposed as a part of Specific Plan adoption.

Housing Element Policy 16

The City of Roseville will adopt a Density Bonus Ordinance to provide direct assistance in the development of housing affordable to very low and low income households.

The total number of density bonus units available will be limited to the number of residential units which have not been allocated to the Specific Plans or Infill Areas, so as not to exceed the citywide population cap established by the General Plan.

Consistent

The City of Roseville adopted a Density Bonus Ordinance in May 1989. The City, when reviewing specific projects, must ensure implementation of the Ordinance does not cause the Citywide population cap to be exceeded.

Housing Element Policy 17

The City will endeavor to provide direct financial assistance in addition to using existing state, federal, and local programs to support the City's affordable housing activities.

Consistent

Implementation of this policy requires specific action by the City of Roseville. Implementation of the NCRSP does not affect the provision of direct financial assistance by the City.

Housing Element Policy 18

Upon adoption of the amended Housing Element, the City expects to amend the Development Agreement covering the Southeast and Northeast Specific Plans to incorporate language establishing a 10 percent Affordable Housing Goal in each SPA and requiring an affordable housing plan be developed to achieve the goal. The City will also develop language regarding the 10 percent Affordable Housing and affordable housing plan for inclusion within the Northwest and North Central Specific Plans Development Agreements which as of January 1, 1989 are still being drafted.

Consistent

The NCRSP updates this policy in that it contains policies which provide for the implementation of the 10 percent Affordable Housing goal. Such a provision has already been adopted as a part of approval of the Northwest Roseville Specific Plan.

Housing Element Policy 19

The City encourages the Roseville Business sector to participate in achieving the community's Affordable Housing Goal. The City will assist the Business Community in establishing an Affordable Housing Investment Fund. In terms of establishing a fee in nonresidential construction to support affordable housing, the City will not consider or investigate the creation of such a fee until the fee adopted by the City of Sacramento is put in place and survives legal challenge.

Consistent

Implementation of this policy requires specific action by the City of Roseville. Adoption of the NCRSP does not affect the City's ability to establish an Affordable Housing Investment Fund.

Housing Element Policy 20

The City will encourage the establishment of a non-profit Housing Development Corporation to work with the City, Development, and Business Communities to build, own, and manage housing affordable to Roseville's very low/low income households.

Consistent

Implementation of this policy requires specific action by the City of Roseville. Implementation of the NCRSP will not preclude the City's establishment or operation of a nonprofit Housing Development Corporation.

Housing Element Policy 21

The City will investigate the need for obtaining Article 34 authority from Roseville voters and request such authority if the City's involvement in an affordable project through liens, ownership, or management is deemed necessary.

Consistent

Implementation of this policy requires specific action by the City of Roseville. Adoption of the NCRSP will not affect the requested action by the City to investigate the need for obtaining Article 34 authority from Roseville voters.

Housing Element Policy 22

Identify and rezone existing single family detached sites to a mixture of single family attached and multifamily densities to allow for and encourage the construction of more affordable rental and sale units.

Identify and rezone existing multifamily sites, with densities of less than R-20 to a density of R-20+ to meet the projected demand for high-density units.

The City will investigate various methods of providing necessary infrastructure, such as through fees developer land dedication, detailed site review of needed services, etc. to sites currently zoned residential, but which cannot be developed because they lack adequate public services.

Consistent

Implementation of this policy entails rezoning of existing multifamily land uses to higher densities. According to staff, this policy is intended to facilitate more efficient in fill development, and, since the NCRSP includes new land use, this policy is not applicable. The NCRSP is consistent with this policy in that it does not introduce any measures uses which conflict with this policy.

Housing Element Policy 23

The City will adopt the Specific Plans which will grant residential land use to the areas covered by the Plans and through Development Agreements will regulate development to ensure the necessary public infrastructure and services are in place for the new development.

Consistent

Implementation of this policy requires specific action by the city of Roseville. Adoption of the NCRSP will be conditioned by approval of a Development agreement which will implement this policy.

Housing Element Policy 24

The City shall adopt an ordinance to implement the state-sponsored concept of constructing second units "granny flats" on property occupied by single-family units as a means of providing affordable rental housing.

The City should designate specific sites for use as mobile home parks and encourage developers to use manufactured units in their housing projects. The City should identify sites where mixed use projects would be appropriate.

Consistent

Implementation of this policy entails action by City staff. The NCRSP is consistent with this policy because it does not introduce any measures which conflict with implementation of this policy.

Housing Element Policy 25

Implement the necessary enabling legislation that will create a Zoning Administrator for routine and minor planning matters to be processed at staff level.

Consistent

Implementation of this policy entails action by City staff to implement the necessary enabling legislation that will create a Zoning Administrator for routine and minor planning matters to be processed at staff level. This policy is not applicable to the NCRSP. The plan is consistent with this policy because it does not introduce any measures which conflict with implementation of this policy.

Housing Element Policy 26

Explore the financial impact a use or graduated-type fee assessment system will have on City revenues. If such a fee system will continue to provide adequate revenues at the same level as current flat-rate system, then the institution of use or graduated fees should be considered for the production of affordable housing.

Consistent

Individual projects within the Specific Plan area will be subject to whatever fee structure is in place at the time the various projects are submitted for review.

Housing Element Policy 27

Review subdivision standards, and if practical, modify the standards to make them similar to Sacramento County's to aid in the development of affordable housing.

Consistent

Individual projects within the Specific Plan area will be subject to the standards in place at the time the various projects are submitted for review.

Housing Element Policy 28

At this point in time, rent control is not considered to be a viable option for the City's housing policy. Consequently, Roseville has no intention to implement any form of rent control.

Consistent

This policy identifies the City's position on rent control. The NCRSP is consistent with this policy because it does not introduce any measures which conflict with implementation of this policy.

Housing Element Policy 29

The City of Roseville will attempt to implement a Mortgage Revenue Bond Program for both owner-occupied and rental properties.

Consistent

The Specific Plan includes policies which support the Affordable Housing Program being established by the City. Consistent with this program, 10 percent of the housing included in the Specific Plan will be available for participation on the affordable housing program.

Housing Element Policy 30

Identify and attempt to implement financing programs and mechanisms, such as the Mortgage Revenue Bond Program and other state and federal programs, which can provide financing at affordable rates and terms for both developers of ownership and rental units and homebuyers.

Consistent

The Specific Plan includes policies which support the Affordable Housing Program being established by the City. Consistent with this program, 10 percent of the housing included in the Specific Plan will be available for participation on the affordable housing program.

Housing Element Policy 31

The City will continue operating its existing energy conservation programs and will consider the implementation of those proposed programs, which prove to be cost effective.

Consistent

Implementation of this policy requires action by City staff to continue operation of energy conservation programs and consider implementation of proposed programs which prove to be cost effective. The NCRSP is consistent with this policy because it does not introduce any measures which conflict with implementation of this policy.

Housing Element Policy 32

The City will continue to provide assistance regarding equal housing opportunities through its Housing Office and Housing Authority.

Consistent

Implementation of this policy entails action by City staff to continue to provide assistance regarding equal housing opportunities through the Housing Office and Housing Authority. The NCRSP is consistent with this policy because it does not introduce any measures which conflict with implementation of this policy.

Circulation Element

Circulation Element Policy 1

For the City of Roseville, the Level of Service C shall be used in determining the roadway capacities and intersection delays for all freeway, arterial, and collector streets. For long-range development, Level of Service C need not be strictly maintained if other policies and action plans indicate that a lesser Level of Service may be acceptable on a short-term basis, providing there are sufficient overriding considerations.

Consistent

The traffic analysis indicates that, with implementation of the identified mitigation infrastructure, LOS C will be maintained at all intersections within the Plan area, and that implementation of the Plan will not produce unacceptable Levels of Service at intersections in the vicinity.

Circulation Element Policy 2

If an ultimate population of 92,000 is to be allowed in the City of Roseville, then the incremental growth of 22,000 to 27,000 additional people should be allocated on the basis of maintaining a balance of jobs and housing to minimize impacts on the intracity road systems.

Consistent

Additional action on the City's part will be required on a citywide policy basis to implement this policy. The Specific Plan by itself will produce more jobs than housing, requiring more housing be provided in other areas to achieve a balance. Any City action should include an examination of other housing developments outside the City.

Circulation Element Policy 3

To meet the projected travel demands, major additional highway capacity (expressed as screen lines that are a composite of individual roadways within a corridor) that will be needed citywide includes:

1. Eight highway lanes east of I-80, running in an east/west direction, to supplement existing capacity of Douglas and Cirby;
2. Twelve additional lanes across I-80;
3. Six to eight lanes across the railroad tracks in the central area of Roseville;
4. Major improvements in highway capacity between I-80/Riverside and Subway undercrossing of the railroad;
5. Eight to twelve lanes in a north/south direction to supplement existing highway lanes in the northwest of the City on the existing Route 65 corridor between Baseline and Blue Oaks;
6. Six to eight lanes in an arc across the northern side of the City from Douglas/Rocky Ridge to Highway 65;
7. Four additional highway lanes on the east side of the City in a north/south direction;

8. An east-west arterial system in the northwest of the City.

Consistent

The Specific Plan includes provisions to implement the needed improvements per the most recent citywide traffic analysis.

Circulation Element Policy 4

To meet projected travel demands in the eastern area of the City, the following improvements need to be implemented:

1. Douglas to six-lane arterial;
2. Rocky Ridge to four-lane arterial;
3. Sierra College to four-lane arterial;
4. Possible need for improvements to Sunrise Avenue;
5. North Cirby Way as four-lane arterial;
6. New two-lane roadway running north and/or west from Rocky Ridge/Douglas, to connect across I-80 to north of the City.

Consistent

The NCRSP includes provisions to implement the improvements identified in the Citywide Circulation Study. Development within the Plan area will be subject to the trip fee ordinance and will contribute its pro rata share to all required improvements.

Circulation Element Policy 5

To meet projected travel demands in the central area of the City, the following improvements need to be implemented:

1. Placer Center Arterial overcrossing to a four-lane arterial;
2. New I-80 overcrossing to a four-lane arterial;
3. Reconstruction of the Subway undercrossing to a four- or six-lane highway;
4. Provision of two additional lanes across the tracks, between Route 65 and the southern City limit;

5. Major improvements to the approach roads on either side of the railroad, including Vernon, Cirby, and Riverside;
6. New Foothills Boulevard extension from Baseline to Riverside as four- or six-lane arterial.

Consistent

The NCRSP includes provisions to implement the improvements identified in the Citywide Circulation Study. Development within the Plan area will be subject to the trip fee ordinance and will contribute its pro rata share to all required improvements.

Circulation Element Policy 6

To meet projected travel demand in the northwest area of the City, the following improvements need to be implemented:

1. Foothills Boulevard to six-lane arterial;
2. Route 65 to four-lane arterial;
3. Route A to four-lane arterial;
4. Blue Oaks to six-lane arterial;
5. Four-lane arterial east of and parallel to Route 65;
6. Six lanes of east/west arterial between Route A and Blue Oaks Road.

Consistent

The Specific Plan includes provisions to implement the needed improvements.

Circulation Element Policy 7

Based on the amount, location and timing of future growth in Roseville, specific roadway improvements should be implemented as indicated on the following tables:

Table 1	(current to about 1985)
Table 2	(1985 to 1995)
Table 3	(1995 to 2010)

Consistent

The Specific Plan includes provisions to implement the needed improvements within the North Central Roseville Specific Plan area in a timely manner. The fee ordinance is designed to assure timely construction of improvements in accordance with Policy 7.

Circulation Element Policy 8

To produce sufficient revenue to implement necessary roadway improvement, the traffic impact fee should be increased from 1 percent to 1.5 percent of construction value.

Consistent

Under the current ordinance, traffic impact fees are collected on a per-trip basis.

Circulation Element Policy 9

To monitor and evaluate the effects of development projects on the citywide roadway systems, the Roadway Needs Manual Analysis Tool, as provided in Technical Memorandum 5 of the Roseville Traffic Circulation Study, by PRC Voorhees, shall be utilized.

Consistent

The Specific Plan includes provisions to implement the needed improvements per the most recent citywide traffic analysis.

Transportation Element

Transportation Element Policy 1

Develop a bicycle plan to be added to the City's General Plan.

Consistent

The Specific Plan includes policies for development of a bicycle/pedestrian network within the Plan area.

Transportation Element Policy 2

Provide bicycle routes on major streets leading through the City and into outlying areas.

Consistent

The Specific Plan includes provisions for development of Class I and II bicycle lanes.

Transportation Element Policy 3

Provide an internal system leading to and from convenient shopping and public service areas.

Consistent

The Specific Plan identifies potential routes and contains policies to implement such a system which will tie into a citywide system.

Transportation Element Policy 4

Provide adequate bike lanes to allow children easy access to and from schools and recreation areas.

Consistent

The Specific Plan identifies bike lanes along major streets and utility easements. This network connects the principal neighborhoods, parks, and schools in the Plan area.

Transit Element

Transit Element Policy 1

Provide a mass transit system that is most suited in convenience and efficiency for the citizens of Roseville at a cost that is not prohibitive to any segment of the community.

Consistent

The plan includes policies requiring development of bus turnouts and shelter facilities within the area. Further, the proposed design of the arterial roadway network provides efficient routes of travel within the Plan area as well as adjoining areas of the City.

Transit Element Policy 2

Continue use of the Transportation Commission, to monitor the needs of the community in order to serve the largest possible number of citizens and provide the best possible transit system.

Consistent

This policy identifies the appropriate method of monitoring the transit needs in the community. Because the NCRSP does not introduce measures which conflict with implementation of this policy, it is consistent with this policy.

Scenic Highways Element

Scenic Highways Element Policy 1

Preserve, enhance, and create the necessary amenities along major roadways linking Roseville with adjacent jurisdictions to maintain the community identity of Roseville.

Consistent

The Specific Plan includes landscape design guidelines along all roadways to implement this policy.

Scenic Highways Element Policy 2

Designate which major roadways should serve as corridors to preserve community identity.

Consistent

The Specific Plan identifies major collectors and neighborhood streets.

Scenic Highways Element Policy 3

Encourage Placer County to adopt consistent policies relating to those roadway corridors now serving both jurisdictions, but which will eventually be within the Roseville City limits.

Consistent

The Specific Plan is consistent with this policy because it does not conflict with this policy. The NCRSP identifies design, landscaping, and maintenance policies for roadways within the City. It is recognized that development within the City, including the Plan area, will provide a catalyst for development beyond the City limit, and that situation is the impetus for this policy. Implementation of this policy requires action by the City and County.

Open Space and Conservation Element

Open Space and Conservation Element Policy 1

Open space shall be treated as a byproduct of other land uses where the primary land use function establishes the need for preservation.

Consistent

The Specific Plan designates open space in accordance with this policy.

Open Space and Conservation Element Policy 2

Provide for purchase of desirable lands by allocating funds in the City budget to be used for land acquisition projects.

Consistent

Implementation of this policy requires the allocation of funds into appropriate City budgets. The NCRSP is consistent with this policy because it does not introduce any measures which conflict with implementation of this policy.

Open Space and Conservation Element Policy 3

Provide for the preservation of diverse habitats (e.g., riparian habitats), native trees, and unique plant species or habitats.

Consistent

The Specific Plan designates riparian corridor, oak woodland, and vernal pool/wetland areas for preservation.

Open Space and Conservation Element Policy 4

Provide for the preservation of the streambed systems to:

1. Ensure public safety from storm runoff;
2. Allow for proper maintenance; and
3. Ensure public access, use and enjoyment.

Consistent

The Specific Plan specifies that all area within the 100-year floodway will be preserved with the intention of this area remaining in its natural condition.

Open Space and Conservation Element Policy 5

Those soils which currently support viable agricultural activities, such as grain production, shall not be converted to urban development prior to development of the less valuable (for agricultural uses) lands consisting of the Mehrten formations and associated soils.

Consistent

No portion of the Plan area is currently used for crop production.

Open Space and Conservation Element Policy 6

Allow broad development flexibility on lands designated as the Mehrten formations as a recognition of the physical constraints on the land and as a means to permit reasonable economic development.

Consistent

The Specific Plan contains proposed policies that recognize the constraints of the Mehrten material.

Open Space and Conservation Element Policy 7

Encourage continued production of grain and other viable agricultural activities such as raising turkeys and growing orchards, and encourage the conversion of marginal grazing lands for urban uses in place of the more valuable agricultural lands when such conversion complies with an adopted growth policy.

Consistent

The area included in the NCRSP is vacant and is not currently used for agricultural pursuits. Some of the Plan area has been used for grazing in the recent past. This policy is not applicable to the NCRSP because there are no viable agricultural activities occurring within the Plan area which the City has indicated it desires to continue. The NCRSP is consistent with this policy because it does not propose the conversion of any area currently used for agriculture.

Open Space and Conservation Element Policy 8

Provide for the use and preservation of mineral deposits within the Strap Ravine Plan area if subsequent geologic studies are conducted to verify the extent and importance of such deposits.

Consistent

None of the Strap Ravine Plan area is included in the NCRSP. The NCRSP is consistent with this policy because it does not introduce any conflicting measures.

Open Space and Conservation Element Policy 9

Provide for the preservation of lands that possess scenic qualities or are associated with roadways that are recognized as community corridors in the Scenic Highway Element.

Consistent

The Specific Plan includes development of landscaped corridors along collector roadways, and preservation of oak woodland and wetland/vernal pool areas within the Plan area.

Open Space and Conservation Element Policy 10

Provide for the preservation and identification of historically and culturally significant sites within the Plan.

Consistent

An archaeologic/historic survey of the Plan area has been conducted, and the appropriate recommendations have been incorporated into the Plan.

Open Space and Conservation Element Policy 11

Provide for adequate park and recreational facilities for all existing and future neighborhoods.

Consistent

An appropriate amount of parkland has been proposed in conjunction with development of the Plan area.

Open Space and Conservation Element Policy 12

Provide for a hierarchy of public parks and recreational programs to serve the entire Plan area.

Consistent

The Plan area designates parks in accordance with this policy.

Open Space and Conservation Element Policy 13

Provide for continued public park/school development.

Consistent

The Specific Plan includes co-location of parks and school sites.

Open Space and Conservation Element Policy 14

Provide for use of all major utility easements to encourage intracity recreational link up.

Consistent

Intracity recreational links are provided as shown on the Bikeway Master Plan, page 5-12 of the Specific Plan. These links use floodways and the 30- to 50-foot landscape corridor adjacent to major streets.

Open Space and Conservation Element Policy 15

Provide for timely improvement of parks when surrounding development warrants it.

Consistent

The Specific Plan provides parkland dedication per City requirements. Development of park facilities is the responsibility of the City, but may be facilitated through development agreement(s) with individual projects as they are proposed.

Open Space and Conservation Element Policy 16

Provide for park trails to be used by pedestrians, bicyclists, and other alternative transportation modes.

Consistent

The Specific Plan identifies routes for development of a pedestrian/bicycle pathway system.

Noise Element

Noise Element Policy 1

Provide a guide that relates acceptable noise levels to type of land use.

Consistent

The Specific Plan is subject to the noise standards established by the Roseville Noise Element.

Noise Element Policy 2

Provide a land use plan that considers proper noise levels between various land uses.

Consistent

The Specific Plan includes land uses located in accordance with the policies of the Land Use Element of the General Plan. Design and location of land uses within the Plan area is proposed to minimize the potential for land use conflicts, including noise. Where appropriate, noise mitigation measures will be implemented.

Noise Element Policy 3

Provide flexibility in the use of the various techniques that are necessary to meet acceptable noise levels.

Consistent

Specific techniques for noise mitigation will be identified as individual projects are proposed. The Specific Plan does not limit techniques which may be implemented.

Noise Element Policy 4

Adopt enforceable noise standards for all land uses.

Consistent

The Specific Plan is subject to the noise standards established by the Roseville Noise Element.

Noise Element Policy 5

Support legislative efforts directed at source control of noise emissions.

Consistent

This policy establishes the City's position in support of legislative efforts directed at source control emissions. The NCRSP is consistent with this policy because it does not introduce a conflicting policy.

Noise Element Policy 6

Encourage state and federal agencies to enforce and implement existing noise emission standards.

Consistent

This policy establishes the City's position to encourage state and federal agencies to enforce and implement existing noise emission standards. The NCRSP is consistent with this policy because it does not introduce a conflicting policy.

Seismic Safety Element

Seismic Safety Policy 1

Ensure that future land uses are compatible with the goal and policies of this element.

Consistent

All land uses proposed in the Specific Plan area are recognized by the Roseville General Plan.

Seismic Safety Policy 2

Ensure that future development is designed and sited in a way which will reduce any potential seismic hazard to an "acceptable level of risk" as defined in the Technical Addendum of this element. A registered geologist should be consulted, as necessary, during the actual siting of specific projects.

Consistent

All structures within the Plan area will be constructed to the standards of the Roseville Building Code. This code specifies the level of structural integrity required based upon the calculated geologic hazard of the area. Roseville is classified as a low-risk seismic area.

Seismic Safety Policy 3

Use all available seismic safety data to review and evaluate all proposed projects.

Consistent

The Specific Plan specifies that prior to approval of individual developments, appropriate geotechnical analysis will be completed on project sites.

Seismic Safety Policy 4

Reduce the potential danger posed by existing land uses and buildings to an "acceptable level of risk" through appropriate mitigation measures.

Consistent

All structures within the Plan area will be constructed to the standards of the Roseville Building Code. This code specifies the level of structural integrity required based upon the calculated geologic hazard of the area. Roseville is classified as a low-risk seismic area.

Seismic Safety Element Policy 5

Continue to study and evaluate all potential faults in the Roseville area. Any fault which is found to be "active" should be defined in the Technical Addendum of this element.

Consistent

This policy provides direction to City staff and implementation requires action on the part of staff. City staff reviews information pertaining to potential faults in the City through Draft EIRs and geotechnical studies prepared in conjunction with growth in the City. The NCRSP is consistent with this policy because it does not introduce any measures which conflict with implementation of this policy.

Seismic Safety Policy 6

Fully comply with state seismic safety standards for public schools, hospitals, and all public buildings.

Consistent

All structures within the Plan area will be constructed to the standards of the Roseville Building Code. This code specifies the level of structural integrity required based upon the calculated geologic hazard of the area. Roseville is classified as a low-risk seismic area.

Seismic Safety Policy 7

Respect environmental and aesthetic considerations in determining appropriate solutions to seismic hazards.

Consistent

All structures will be subject to City review prior to approval.

Seismic Safety Element Policy 8

Consider public and private costs of reducing and/or eliminating seismic hazards in mitigation programs.

Consistent

This policy provides direction to City staff and implementation requires action on the part of staff. City staff reviews mitigation for seismic hazards through Draft EIRs and geotechnical studies prepared in conjunction with growth in the City. The NCRSP is consistent with this policy because it does not introduce any measures which conflict with implementation of this policy.

Seismic Safety Element Policy 9

Periodically update the Roseville Emergency Plan to ensure its adequacy for dealing with seismic events and other natural disasters.

Consistent

This policy provides direction to City staff and implementation requires action on the part of staff. The NCRSP is consistent with this policy because it does not introduce any measures which conflict with implementation of this policy.

Seismic Safety Element Policy 10

Amend other elements of this General Plan to conform to this element.

Consistent

Implementation of this policy includes amendment of the General Plan. Because the NCRSP is consistent with the General Plan and does not introduce any measures which conflict with implementation of this policy, the Plan is consistent with this policy.

Seismic Safety Element Policy 11

Seismic studies, prepared for the Auburn Dam project, should be incorporated as a part of this document.

Consistent

Incorporation of information into the General Plan is beyond the scope of the NCRSP. The NCRSP is consistent with this policy because it does not introduce any measures which conflict with implementation of this policy.

General Safety Element

Flooding

General Safety Element Policy 1

It is the policy of the City of Roseville to:

1. Provide accurate flood warning and forecasting information to community residents;
2. Maintain accurate flood fighting and emergency evacuation plans;
3. Reduce floatable material in floodplain areas;

4. Use the concept of floodway zoning to restrict development in areas which are susceptible to flooding;
5. Provide appropriate facilities for reducing the likelihood of flooding in all parts of the community through such means as retention ponds and enlarged culverts.

Consistent

The Specific Plan uses the most current floodway study to designate the 100-year floodway. This floodway will be dedicated to the City. A master storm drain plan has been developed and is subject to City review as will storm drain facilities in individual projects. These facilities will be designed in accordance with City standards.

Geologic Hazards

Geologic Hazards Element Policy 2

It is the policy of the City of Roseville to:

1. Identify areas having erosion, subsidence, or expansive soil problems.
2. Continue to mitigate the potential impacts of geologic hazards through subdivision reviews and building permit inspections.
3. Minimize soil problems by maintaining compatible land use and suitable building designs and construction techniques.

Consistent

The Specific Plan identifies measures to minimize erosion and provides for protection of areas along major water courses. Individual projects will be subject to review at the Tentative Map stage.

Energy Element

Energy Element Policy 1

The City shall set an example, thus providing energy education and leadership, by reducing energy consumption in (all) public buildings, vehicles, and services.

Consistent

Implementation of this policy is attained through efficient operation of public buildings, vehicles, and services. The NCRSP does not include any policies pertaining to operation of these facilities, and consequently, is consistent with this policy because it does not introduce any measures which conflict with its implementation.

Energy Element Policy 2

Principles of energy conservation be integrated into existing school curricula.

Consistent

Implementation of this policy mandates integration of energy conservation measures into the local school curricula. The NCRSP is consistent with this policy because it does not introduce any measures which conflict with implementation of this policy.

Energy Element Policy 3

The City should continue to provide an electric utility.

Consistent

This policy states a City position that it should continue to provide an electric utility. The NCRSP does not include measures which are contrary to this policy and, consequently, is consistent with this policy.

Energy Element Policy 4

Encourage and promote the use of cost-effective, alternate energy sources.

Consistent

Implementation of this policy entails action by the City to encourage and promote use of cost effective, alternate sources of energy. The NCRSP is consistent with this policy because it does not introduce any measures which conflict with implementation of this policy.

Energy Element Policy 5

Promote and establish building and appliance standards that will reduce energy consumption in the residential sector.

Consistent

Builders within the Plan area will be subject to Roseville building standards.

Energy Element Policy 6

Encourage innovative site designs and orientation techniques which incorporate passive and active solar designs and natural cooling techniques in the residential sector.

Consistent

Individual projects are subject to review, and consistent with this policy, can be encouraged to incorporate such measures; however, a specific plan does not include site plans or design standards at such a detailed level.

Energy Element Policy 7

Promote a weatherization and retrofit program within the existing residential sector.

Consistent

Implementation of this policy requires City action to promote a weatherization and retrofit program within the existing residential sector. Because the NCRSP addresses development of new areas and not existing residential areas, this policy does not pertain to the Specific Plan.

Energy Element Policy 8

Promote energy efficient land use planning by incorporating energy conservation as a major criterion for future decision making.

Consistent

The Specific Plan has been designed based on a neighborhood concept which incorporates convenient location of parks, commercial areas, and public facilities. This type of land use planning reduces the length and number of vehicular trips undertaken by the general public.

Energy Element Policy 9

Energy conservation education and measures be implemented to encourage energy savings by residents.

Consistent

Energy Conservation measures are set forth in Section 6.6 of the Specific Plan.

Energy Element Policy 10

Encourage innovative site design and orientation techniques which incorporate passive and active solar design and natural cooling techniques in the commercial and industrial sectors when they are found to be cost effective.

Consistent

Individual projects are subject to review, and consistent with this policy, can be encouraged to incorporate such measures; however, a specific plan does not include site plans or design standards at such a detailed level.

Energy Element Policy 11

Encourage energy efficient use of lighting and landscaping in the design of new commercial and industrial uses.

Consistent

Individual projects are subject to review, and consistent with this policy, can be encouraged to incorporate such measures; however, a specific plan does not include site plans or design standards at such a detailed level.

Energy Element Policy 12

Provide the commercial and industrial sector with a wide variety of energy conservation techniques which can be easily adapted to existing buildings.

Consistent

The NCRSP entails development of new buildings and, consequently, is not addressed by this policy. However, as previously discussed, individual projects are subject to review, and can be encouraged to incorporate such measures. A specific plan does not include site plans or design standards at such a detailed level.

Energy Element Policy 13

Encourage large industrial employers to provide energy saving modes of transportation for their employees.

Consistent

This policy is implemented through enforcement of the Roseville Ridesharing Ordinance and the future availability of mass transit to the Plan area. Bicycle paths will also be located in the NCRSP. As appropriate, employers within the Plan area will be subject to the Ridesharing Ordinance.

Energy Element Policy 14

Provide energy conservation education and techniques to the commercial and industrial sector so that optimum energy efficiency is obtained.

Consistent

As previously discussed, individual projects are subject to review, and can be encouraged to incorporate such measures; however, a specific plan does not include site plans or design standards at such a detailed level.

Energy Element Policy 15

The City should pursue methods to make existing public facilities as energy efficient as possible.

All new public facilities shall be designed and built for energy efficiency.

The City should establish a program for replacement of energy-inefficient street light fixtures.

The City should establish, as part of their replacement program for vehicles, a high priority for fuel efficient vehicles.

Consistent

This policy addresses management of City facilities and is not applicable to private development within the NCRSP. The City would be responsible for implementation of measures consistent with this policy in public facilities, such as the library, included within the Plan area. The NCRSP is consistent with this policy because it does not introduce any measures which conflict with implementation of this policy.

Energy Element Policy 16

Develop procedures to analyze and control land use impacts on peak electrical demands.

Consistent

This policy provides direction for City staff to develop procedures which could be used to control land use impacts on peak electrical demands. Implementation of this policy entails action by City staff. The NCRSP does not introduce measures which conflict with implementation of this policy.

Energy Element Policy 17

Encourage the implementation of load management strategies to reduce peak demands and avoid emergency high-demand episodes.

Consistent

Implementation of this policy entails action by City staff, and the NCRSP does not introduce measures which conflict with implementation of this policy.

Public Services and Facilities Element

Public Services and Facilities Element Policy 1

To evaluate city facility capacity and service levels, the City will establish an annual monitoring and reporting program that will be a part of the annual budgetary process.

Consistent

Implementation of this policy entails action by City staff, and the NCRSP does not introduce measures which conflict with implementation of this policy. It should be noted that the NCRSP, consistent with staff requirements, includes a plan for financing and development of infrastructure to meet the anticipated demand.

Public Services and Facilities Element Policy 2

To ensure that major City facilities are available to accommodate existing and future growth, the City will formulate and adopt a coordinated five-year capital improvement plan for such facilities. The capital improvement plan will be prepared annually as a five-year projection of needs for analysis concurrent with the budgetary process.

Consistent

Implementation of this policy entails action by City staff, and the NCRSP does not introduce measures which conflict with implementation of this policy. It should be noted that the NCRSP, consistent with staff requirements, includes a plan for financing and development of infrastructure to meet the anticipated demand.

Public Services and Facilities Element Policy 3

The City shall adopt appropriate fee schedules relating to new developments in order to pay for adversely impacted public facilities and services.

Consistent

The Specific Plan identifies methods for financing extension of infrastructure facilities and City services to the Plan area.

Public Services and Facilities Element Policy 4

The City shall require dedication of lands within newly developing areas for public purposes when it is found that a facility is needed.

Consistent

The plan will include dedication as required by the City.

Public Services and Facilities Element Policy 5

The City shall provide for detailed review of all development plans to ensure adequate public services and facilities are available.

Consistent

Individual projects within the Plan area will be subject to review prior to approval.

Public Services and Facilities Element Policy 6

The City shall continue to provide an adequate wastewater treatment facility to take care of present and projected sewer needs for all types of land uses.

Consistent

The Specific Plan is included in the area proposed to be serviced by planned expansion of the treatment facility.

Public Services and Facilities Element Policy 7

The City shall investigate the possibility of providing a separate wastewater treatment facility for the north industrial area.

Consistent

Implementation of this policy entails action by City staff. None of the NCRSP is within the north industrial area, and the Plan does not introduce measures which conflict with this policy.

Public Services and Facilities Element Policy 8

The City shall extend new sewer lines to the east side of the City to meet existing and future sewer needs.

Consistent

Implementation of the NCRSP will require extension of sewer lines in accordance with this policy.

Public Services and Facilities Element Policy 9

The City shall adopt a fee schedule which requires new development to pay for sewerline extensions or plant expansion caused by such developments.

Consistent

Implementation of this policy entails action by City staff, and the NCRSP does not introduce measures which conflict with implementation of this policy. It should be noted that the NCRSP, consistent with this policy, includes a plan for financing and development of infrastructure to meet the anticipated demand.

Public Services and Facilities Element Policy 10

The City shall continue its ongoing maintenance program of sewer lines to ensure satisfactory service in the future.

Consistent

Implementation of this policy entails action by City staff, and the NCRSP does not introduce measures which conflict with this implementation.

Public Services and Facilities Element Policy 11

Pursue and consider alternatives for locating a new treatment plant in the north area industrial sector.

Consistent

Implementation of this policy entails action by City staff. None of the NCRSP is within the north industrial area, and the Plan does not introduce measures which conflict with implementation of this policy.

Public Services and Facilities Element Policy 12

The City shall continue to maintain a contract with the Bureau of Reclamation for sufficient water to meet the City's long-range needs in addition to providing an adequate backup well system.

Consistent

This policy specifies maintenance of a contractual agreement between the City and a federal agency. Implementation of this policy entails action by City staff, and the NCRSP does not introduce measures which conflict with this policy.

Public Services and Facilities Element Policy 13

The City shall expand the Water Treatment Plant when it is found to be necessary.

Consistent

This policy is not relevant to adoption of the NCRSP except that the Specific Plan and subsequent Development Agreement will identify financing mechanisms to facilitate expansion as required by development of the Plan area.

Public Services and Facilities Element Policy 14

The City shall seek to provide water service to all developing areas of town.

Consistent

This policy is not relevant to adoption of the NCRSP except that the Specific Plan and subsequent Development Agreement will identify financing mechanisms to facilitate expansion as required by development of the Plan area.

Public Services and Facilities Element Policy 15

The City shall promote water conservation programs in order to control the use of water.

Consistent

Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

Public Services and Facilities Element Policy 16

The City shall adopt a fee schedule which requires new development to pay for major water lines, extensions, or water plant expansions which are caused by such developments.

Consistent

Projects within the Plan area will be subject to the adopted fee schedule.

Public Services and Facilities Element Policy 17

The City shall continue to provide an efficient Electrical Distribution System which is as inexpensive as possible.

Consistent

The electrical distribution within the Plan area will be developed consistent with the requirements of the Roseville Electric Department. Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

Public Services and Facilities Element Policy 18

The City shall pursue cost-effective alternative energy sources.

Consistent

Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

Public Services and Facilities Element Policy 19

The City shall adopt a fee schedule which requires new development to pay for expansions of electrical systems and facilities which are caused by such developments.

Consistent

Projects within the Plan area will be subject to the adopted fee schedule.

Public Services and Facilities Element Policy 20

The City shall continue to maintain a power contract with the Bureau of Reclamation.

Consistent

Implementation of this policy entails action by City staff, and the NCRSP does not introduce measures which conflict with this policy.

Public Services and Facilities Element Policy 21

The City will continue to provide a refuse collection site that satisfies the needs of the refuse disposal operation and for use by City residents.

Consistent

The NCRSP does not introduce measures which conflict with this policy.

Public Services and Facilities Element Policy 21*

The City shall provide adequate Park and Recreation facilities for all existing and future neighborhoods.

(* incorrectly numbered in the General Plan.)

Consistent

The Specific Plan provides parkland in accordance with City requirements.

Public Services and Facilities Element Policy 22

The City shall continue to coordinate park/school development whenever feasible.

Consistent

The Specific Plan includes coordinated park/school sites.

Public Services and Facilities Element Policy 23

The City shall ensure timely development of park sites to satisfy newly developed areas and neighborhood needs.

Consistent

The Specific Plan provides parkland dedication per City requirements. Development of park facilities is the responsibility of the City, but may be facilitated through development agreement(s) with individual projects as they are proposed.

Public Services and Facilities Element Policy 24

Whenever possible, the City shall provide for the use of large utility easements for recreational park use.

Consistent

The Specific Plan proposes limited recreational use of utility easements.

Public Services and Facilities Element Policy 25

Whenever possible, the City shall use floodway and creek areas for public pathway development.

Consistent

The Specific Plan proposes passive recreational use of the floodway, predominantly as a route for the proposed bicycle/pedestrian pathway.

Public Services and Facilities Element Policy 26

The City shall adopt and implement a creek maintenance program for both publicly owned and privately owned creek areas.

Consistent

All 100-year flood areas within the NCRSP will be dedicated to the City, and the NCRSP does not introduce measures which conflict with this policy.

Public Services and Facilities Element Policy 27

Require as part of project development approval that predetermined park sites be set aside for future acquisition and development.

Consistent

The Specific Plan identifies park sites to be dedicated to the City.

Public Services and Facilities Element Policy 28

Require dedication of potential park land and public pathways that are located in the floodplain areas.

Consistent

The Specific Plan specifies that the 100-year floodway will not be developed and will be dedicated to the City, except for roadway crossings.

Public Services and Facilities Element Policy 28*

The City shall examine alternatives for expanding City Hall, either by remodeling the existing building or finding alternative sites for existing City Hall functions.

(* incorrectly numbered in the General Plan)

Consistent

City Hall is not situated within the NCRSP area, was recently expanded, and the City has no further requirements for City Hall-type facilities in the Plan area.

Public Services and Facilities Element Policy 29

Adopt the following park standards as minimum requirements for developing new park facilities, allowing flexibility to make adjustments in the standards depending on the size and uniqueness of the service areas.

Consistent

The Specific Plan provides parkland dedication per City requirements.

Public Services and Facilities Element Policy 29*

Fund a study to determine actual needs and space requirement for City Hall functions and the alternatives available for remodeling City Hall.

(*incorrectly numbered in the General Plan)

Consistent

City Hall is not situated within the NCRSP area, was recently expanded, and the City has no further requirements for City Hall-type facilities in the Plan area.

Public Services and Facilities Element Policy 30

Provide financing to remodel City Hall to find alternative sites based upon the needs.

Consistent

City Hall is not situated within the NCRSP area, was recently relocated, and the City has no further requirements for City Hall-type facilities in the Plan area.

Public Services and Facilities Element Policy 31

The City shall expand the Corporation Yard to meet the needs of the City department operating from it.

Consistent

The Corporation Yard is not situated within the NCRSP area, and the NCRSP does not introduce measures which conflict with implementation of this policy.

Public Services and Facilities Element Policy 32

The City shall maintain adequate space to house the police and fire functions.

Consistent

The plan includes a fire station as required by the Fire Department.

Public Services and Facilities Element Policy 33

The City shall provide new fire stations and training facilities for the Fire Department as needed.

Consistent

The plan includes a fire station as required by the Fire Department.

Public Services and Facilities Element Policy 34

The City shall provide a high-quality library service and adequate facilities to handle library facilities.

Consistent

The Specific Plan includes a site for a branch library.

Public Services and Facilities Element Policy 35

The City shall provide branch library facilities on the north side of the City to replace the closure of the Carnegie Branch.

Consistent

The Specific Plan includes a site for a branch library.

Public Services and Facilities Element Policy 36

The City shall encourage efficient use of existing school facilities and help coordinate the use of those facilities for City-sponsored programs whenever it is possible.

Consistent

Implementation of this policy requires the cooperation of the school district(s) and the various City departments which could make use of school facilities. The NCRSP proposes co-location of school sites and parks to enhance the opportunities for coordinated use.

Public Services and Facilities Element Policy 37

The City shall continue to require impact mitigation on developments which are identified as adversely impacting the school districts.

Consistent

The Specific Plan will be subject to school impact fees per appropriate state legislation.

Public Services and Facilities Element Policy 38

The City should seek to develop neighborhood park facilities in conjunction with school sites whenever it is determined to be feasible.

Consistent

The Specific Plan includes several coordinated school/park sites.

Public Services and Facilities Element Policy 39

The City shall work with the school districts in identifying and acquiring future school sites by identifying those sites on the General Plan and on specific development plans.

Consistent

School sites have been designated within the Plan area which meet, or exceed, all yield rate calculations of the Roseville School Districts.

Public Services and Facilities Element Policy 40

Adequacy of public services will be evaluated annually concurrent with the City budget process.

Consistent

This policy is not relevant to adoption of the NCRSP, except that the Specific Plan and subsequent Development Agreement will include measures to facilitate expansion of facilities in the Plan area.

Public Services and Facilities Element Policy 41

Prior to the budget review process, each City activity shall be analyzed according to the following:

1. Establishment of goals and objectives;

2. Formulation of key indicators relating to activity efficiency that can be monitored throughout the year; and
3. Line item cost for each tool or objective.

Consistent

This policy establishes the criteria for evaluation of City activities.

Fire Services Component

Fire Services Component Policy 1

The Fire Department shall strive to obtain an Insurance Service Organization (ISO) rating of No. 3 or better.

Consistent

This policy is not relevant to the NCRSP, except that the station included in the NCRSP provides facilities to achieve the desired ISO rating. Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

Fire Services Component Policy 2

The City shall monitor the Fire Department's service levels annually concurrent with the City budget process.

Consistent

This policy is not relevant to the NCRSP except that the station included in the NCRSP provides facilities to achieve the desired ISO rating.

Fire Services Component Policy 3

Prior to budget review, the Fire Department shall be evaluated according to the following:

1. Establishment of goals and objectives;
2. Formulation of key indicators relating to activities - efficiency that can be monitored throughout the year;
3. Line item cost for each program or objective.

Consistent

This policy identifies the criteria upon which the Fire Department will be evaluated prior to each budget review. Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

Fire Services Component Policy 4

The City shall adopt a development fee which would require new development to pay for new fire facilities.

Consistent

Projects within the Plan area will be subject to adopted impact fees.

Fire Services Component Policy 5

The Fire Department shall seek to control all fires before they become large by responding to them quickly with highly trained and equipped personnel.

Consistent

This policy establishes the objective of the Fire Department relating to control times on fires. Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

Fire Services Component Policy 6

Adopt fire fighting capacity of 500 gallons per minute within 10 minutes of an alarm as a minimum level of service. Continue to utilize full-time call-backs, reserves and Mutual AID Agreements with adjacent fire agencies and departments.

Consistent

This policy establishes the objective of the Fire Department relating to fire fighting capacity. Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

Fire Services Component Policy 7

Adopt a four-minute response time as minimum basic level of service for as much of the City as possible or practical for all emergency calls.

Consistent

Development of a fire station within the Plan area is predicted to provide a four-minute or less response time.

Fire Services Component Policy 8

Adopt the following for major fire emergencies: deploy a programmed reserve and Automatic AID force of six engines, three ladder companies and three chief officers within 15 to 20 minutes of a third alarm. In order to maintain this level of service, Mutual Aid Response Agreements with adjacent fire district/departments will have to be maintained. The City, at this time, does not operate ladder companies.

Consistent

This policy establishes the appropriate deployment levels for the Fire Department in the event of a major fire emergency. Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

Fire Services Component Policy 9

Adopt as a minimum level of service for fires in petroleum storage and production areas the deployment within 10 minutes of special light water or foam fire fighting equipment. The City currently has this capability.

Consistent

This policy establishes a minimum level of service for fires in petroleum storage and production areas. Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

Fire Services Component Policy 10

Maintain and deploy one unit within four minutes for all light rescues. Light rescues relate to all trapped persons that can be extricated with forcible entry and rescue equipment.

Consistent

Development of a fire station within the Plan area is predicted to provide a four-minute or less response time.

Fire Services Component Policy 11

The City shall formulate a funding mechanism to finance new fire stations, including land costs, building construction and equipment.

Consistent

This policy charges City staff with the formulation of a funding mechanism for new fire stations. This policy is not relevant to adoption of the NCRSP, except that the Specific Plan and subsequent Development Agreement will include measures to facilitate expansion of facilities in the Plan area.

Fire Services Component Policy 12

Based upon the new fire service areas depicted on the Land Use Map, the following station development should be followed:

1. Priority No. 1 - Northwest area of town along the Foothills Corridor.
2. Priority No. 2 - Development of a station east of the Freeway I-80 along the Douglas corridor. This is also high priority.
3. Priority Nos. 3 and 4 - Priority No. 3 would be a station to be located southeast of Maidu Park and Priority No. 4 would be for a station to be located north of the Golf Course.

Consistent

The plan includes provision of a station site in accordance with this policy which fulfills Priority No. 4.

Fire Services Component Policy 13

The Fire Department shall seek to provide a comprehensive Emergency Medical Service to aid citizens in need of rescue or Emergency Medical Service.

Consistent

This policy charges City staff with the responsibility to provide a comprehensive Emergency Medical Service to aid citizens in need of rescue or Emergency Medical Service. Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

Fire Services Component Policy 14

Adopt as a minimum level of service the deployment of one basic life support team, trained at a level of at least EMT I, within four minutes of a medical emergency.

Consistent

Development of a fire station within the Plan area is predicted to provide a four-minute or less response time.

Fire Services Component Policy 16

The Fire Department shall provide public outreach programs to train the general public in basic first aid techniques in concert with other public and private agencies.

Consistent

This policy directs the Fire Department to provide first aid training programs and is not relevant to adoption of the NCRSP, except that the Plan area includes a fire station which will likely aid in the provision of these programs.

Fire Services Component Policy 17

The City should establish a well-rounded fire prevention program by providing the following types of prevention programs: planning, general code and ordinance development, inspections/code enforcement, fire data analysis, training, plan checks for new construction, hazardous materials and processes (inspections), fire investigations, public education, and home inspections.

Consistent

This policy provides information relating to fire prevention programs to be provided by the Fire Department, and is not relevant to adoption of the NCRSP, except that the Plan area includes a fire station which will likely aid in the provision of these programs.

Fire Services Component Policy 18

The City shall seek to reduce fires by fully investigating the cause of each fire. Results of the investigations are to be compiled yearly and analyzed to determine what programs would be the best to pursue.

Consistent

This policy provides direction to the Fire Department regarding investigation of fires and is not relevant to adoption of the NCRSP.

Fire Services Component Policy 19

The City shall reduce the impacts of fire emergencies through the use of early warning devices, such as automatic sprinkler devices, automatic detection and reporting devices, and smoke detectors.

Consistent

As appropriate, the City can recommend or require appropriate facilities during review of tentative maps and prior to approval of individual projects.

Fire Services Component Policy 20

The Fire Department shall provide education programs to assist Roseville residents in the use of the 911 telephone number in reporting emergencies, thus minimizing lapse time between detection and reporting.

Consistent

This policy charges the Fire Department with providing educational programs pertaining to proper use of the 911 emergency number and is not relevant to the NCRSP, except that the Plan area includes a fire station which will likely aid in the provision of this program.

Fire Services Component Policy 21

Inform the public of their role and responsibilities as they pertain to disasters.

Consistent

This policy charges the Fire Department with informing the public of their role and responsibilities as they pertain to disasters. This policy is not relevant to adoption of the NCRSP, except that the Plan area includes a fire station which will likely aid in the provision of this program.

Fire Services Component Policy 22

Provide the management, fire control, and rescue service as assigned in the adopted "Roseville Emergency Plan."

Consistent

This policy charges the Fire Department with provision of management, fire control and rescue service as assigned in the adopted "Roseville Emergency Plan" and is not relevant to the NCRSP, except that the Plan area includes a fire station which will aid in the provision of these services.

Fire Services Component Policy 23

Continually update the plan and ensure, on an annual basis, the participants are prepared to carry out assigned functions.

Consistent

This policy charges the Fire Department with annual revision of emergency preparedness plans and is not relevant to the NCRSP, except that the Plan area includes a fire station which will aid in the provision of these services.

Fire Services Component Policy 24

Develop a Hazardous Materials Information Data Base.

Consistent

This policy directs the Fire Department to prepare a hazardous materials information data base. Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

Fire Services Component Policy 25

Develop and program a basic Hazardous Materials Response Team capability within the Fire Department.

Consistent

This policy directs the Fire Department to develop and program a basic Hazardous Materials Response Team capability. Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

Fire Services Component Policy 26

Provide technical training to those personnel assigned to any hazardous materials incident response.

Consistent

Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

Fire Services Component Policy 27

The City shall pursue land acquisition and funding techniques to provide an adequate fire training facility in the North industrial area.

Consistent

Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

Schools Component

School Element Policy Alternative A-1

To preserve the sovereignty of each elementary (K through 8) school district, all district boundaries will remain as currently adopted.

Consistent

The NCRSP proposes school sites consistent with the requirements of the various school districts. Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

School Element Policy Alternative A-2

To make more efficient use of existing school facilities and attendance areas, the elementary school districts are encouraged to make adjustments in district boundaries where found feasible.

Consistent

The NCRSP proposes school sites consistent with the requirements of the various school districts. Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

School Element Policy Alternative A-3

To make most efficient use of existing school facilities and future school sites and to reduce the total number and related cost of school facilities, the elementary school districts are encouraged to consolidate boundaries to create one elementary school district.

Consistent

This policy establishes a City position which encourages the various school districts to consolidate boundaries to create one elementary school district. Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

School Element Policy Alternative B-1

Each elementary and high school district will maintain its own yield rate factors which are to be based on annual surveys within the district.

Consistent

The Specific Plan proposes the calculation of facility size in accordance with yield rates provided by the respective school districts.

School Element Policy Alternative B-2

The yield rates for the elementary school districts will be calculated as a weighted average of the unit/student ratio within all K through 8 districts combined. The yield rates are to be utilized for mitigation and future site calculations.

Consistent

The Specific Plan proposes the calculation of facility size in accordance with yield rates provided by the school districts.

School Element Policy Alternative B-3

1. The yield rates for all elementary school districts will be the same and will be determined by an annual study of development within each district. These yield rates shall be used in calculating short-term mitigation fees. The yield rates for the high school district will also be determined by an annual study.
2. When calculating the number of future K through 8 school sites, a yield rate that is representative of mature neighborhoods shall be considered for residential land use density categories of eight dwelling units or less.
3. Request of the high school district an analysis of the effects of a "maturation" yield rate in calculating future 9 through 12 grade facility needs.
4. Request of the high school and elementary school district an analysis of school facility replacement in calculating future school site needs.

Consistent

The Specific Plan proposes the calculation of facility size in accordance with yield rates provided by the school districts.

School Element Policy Alternative C-1

The land use density/yield rate ratio will be examined periodically and updated if necessary.

Consistent

The Specific Plan proposes the calculation of facility size in accordance with yield rates provided by the school districts.

School Element Policy Alternative E-1

The cost of a portable classroom will be evaluated annually and updated as deemed necessary by the City Council and affected school districts.

Consistent

This policy establishes the requirement for annual review of the cost of portable classrooms. Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

School Element Policy Alternative F-1

To ensure that the cost of providing school sites is spread evenly among landowners and/or developers within affected school districts and consistent with state legislation, acquisition of school sites will be by one of the following methods:

1. Purchase by the school district at fair market value.
2. Dedication in-lieu of payment of school fees with the value of credit based on fair market value.

Consistent

The NCRSP proposes school sites consistent with the requirements of the City and the school districts. Because the NCRSP does not introduce any measures which conflict with implementation of this policy, it is consistent with this policy.

School Element Policy Alternative G-1

The following standards will apply to calculate the maximum acreage for each school:

K-6	0.02 acres per student
7-8	0.024 acres per student
9-12	0.03 acres per student

Consistent

The proposed school facilities within the Plan area are consistent with this policy.

School Element Policy Alternative I-1

1. By negotiated agreement, the City of Roseville and affected school districts will share common facilities where feasible.
2. To the extent that a school district can reduce the total cost of a school facility by joint use with the City, the reduction of such total cost will be reflected in reduced mitigation fees.

3. The City will pursue ownership of shared facilities where appropriate and agreed upon by the affected school district.

Consistent

The elementary and intermediate school sites identified in the Specific Plan are adjacent to park facilities.

School Element Policy Alternative J-1

The number of school sites to be implemented in the future will be based on student capacity criteria and school type as determined by each school district.

Consistent

The number of school sites are consistent with the requirements of the school districts.

School Element Policy Alternative K-1

School financing assistance will be the same as proposed by AB2926, SB2068, and SB327 and any related "cleanup" legislation subsequently adopted.

Consistent

These measures are proposed as financing mechanisms in the Specific Plan area.

3.6 LAND USE

SETTING

Background

Project Site

Historically, land use in the Roseville vicinity has been dominated by agricultural activities, most notably ranching. Much of the North Central Specific Plan area was included in the Spring Valley Ranch, established in 1857 by George R. Whitney, which expanded to include 13,000 acres by around 1867. By 1882, the ranch holdings, totaling over 20,000 acres, were completely enclosed and subdivided by an estimated 100 miles of rock walls. The major activity of the ranch was raising sheep, and some crops were grown, including wheat, raisin grapes, and oranges.

In more recent times, use of the Specific Plan area has been largely limited to livestock grazing, with the exception of an area in the extreme western portion of the site which has been intermittently used for wheat production.

Under the proposed Specific Plan, a new commercial center, intended as a "satellite" downtown area for the South Placer region, would be developed on the project site.

City of Roseville

In downtown Roseville, the Vernon Street/Riverside Avenue/Douglas Boulevard area has constituted the commercial core of Roseville since its establishment. For many years, commercial activity in Roseville was oriented toward the Southern Pacific Railroad (SPRR) yard, the most prominent employer in town. In addition to providing a significant number of local jobs, the railroad attracted other uses including warehousing for rail transported goods and restaurants, department stores, and specialty shops to serve the retail needs of railroad employees and their families. As the railroad era declined, Roseville became more typical of an agricultural community, relying more heavily on traditional and farming-related businesses for the livelihood of its residents. Throughout this period of slow but steady growth, the commercial center of the City continued to evolve around the historic downtown area.

The opening of outlying commercial centers, beginning with Roseville Square, and regional commercial centers, such as Sunrise Mall, coupled with traffic circulation changes and changing patterns of commuting and shopping, have resulted in a net decline in overall retail activity within the Roseville commercial core. Associated with this decline has been an overall shift in the type of businesses situated in the downtown, from the larger department store type of retail business to smaller specialty shops, including restaurants, antique shops, pharmacies, clothing shops, small offices, cinema, bank, and finance company. In an effort to maintain and promote economic activity in the historic downtown, the City has established a

redevelopment area, including the historic core of the City, as well as immediate surrounding areas, including a portion of the North Central Specific Plan area. The benefit of this designation is the availability of funding from government sources to renovate the historic structures in the core of the City, and aid in the revitalization of the business sector.

Existing Land Uses

The project site is not currently used for grazing and is entirely vacant, except for the Highway 65 Bypass which bisects the property northwest to southeast.

Adjacent Land Uses

Existing land uses abutting the Plan area include the Diamond Oaks residential subdivision and golf course, Sierra View Country Club, Roseville High School, Roseville City Cemetery, and an older residential subdivision of primarily single-family homes. Immediately east of the I-80 corridor, commercial and business park uses are being developed. The eastern side also includes the Roseville/Rocklin corporate boundary.

Several transportation corridors are located to the east of the Plan area, including the Highway 65 Bypass, the SPRR, I-80, and Taylor Road. The Highway 65 Bypass/I-80 interchange has recently been completed while the I-80/Taylor Road/Atlantic Street interchange is currently under construction. Construction of the Harding Boulevard interchange will begin in 1989-90.

The area north of the city limits and south of Sunset Boulevard is primarily undeveloped or used for seasonal grazing. Also in this area is an aggregate mining operation located on an approximately 160-acre site. This operation is currently idle, but is proposed to expand onto 267 acres contiguous to the City/County boundary.

North of Sunset Boulevard, in the City of Rocklin, the Stanford Ranch Development is currently under construction. This development is proposed to include approximately 2,990 acres of residential, commercial, and business-professional office land uses. Other land uses in this area include a furniture manufacturing facility and the Atherton Tech Center.

Washington Boulevard, which forms the western boundary of the Specific Plan area, is predominantly undeveloped at this time, but the General Plan designates this area for industrial uses. West of Washington Boulevard is the North Industrial Area, where Hewlett Packard, NEC, American Olean Tile, Latham Lumber, H. B. Fuller, and Albertson's Distribution Center are located.

Plans, Policies, and Regulations

City Zoning Ordinance

The City's zoning ordinance covers specific land uses and is required to be consistent with the General Plan. It will be necessary to update this document as called for in the Roseville General Plan, and in accordance with the Specific Plan when it is finally adopted, in order to add any land use regulations not currently found in the ordinance but required by the Specific Plan.

City General Plan

Consistency of the project with specific General Plan policies is discussed in the General Plan Consistency Section. As called for by General Plan Land Use Policy 2-a, the Specific Plan establishes a separate land use category for business and professional office land uses, and establishes a general profile of the type and intensity of uses to be permitted. Specific uses allowed and not allowed will be determined in the Zoning Ordinances creating the PD Zone for the area, carried out in implementation of policies of the Specific Plan.

Specific Plan Areas

The City presently recognizes four areas of growth governed by separate Specific Plans. Each of the four Specific Plan areas is regulated by City policies and those unique constraints associated with the individual land areas. Development of all of the Plan areas should ideally create a balance of land uses within the City's development area boundaries. Figure 3.6-2 delineates the following Specific Plan areas: Southeast Roseville Specific Plan (SERSP); the Northeast Roseville Specific Plan (NERSP); the Northwest Roseville Specific Plan (NWRSP); and the North Central Roseville Specific Plan (NCRSP). In addition, the North Industrial area is designated for industrial development, but no formal Specific Plan has been written to guide its development.

The majority of the land within the various Specific Plans is presently undeveloped. Construction of approved developments is occurring in the Southeast, the Northeast, and Northwest Specific Plan areas. Development in the Southeast and Northwest areas is primarily residential. Development in the Northeast area is planned for residential, commercial, research and/or business-professional uses. The North Industrial Area is planned for concentrated industrial growth.

Proposed North Central Roseville Specific Plan

The project site, the North Central Roseville Specific Plan Area, is located north of downtown Roseville and spans the area between I-80 and Washington Boulevard (Figures 3.6-1 and 3.6-2). It sits between the western border of the Northeast area and the eastern border of the North Industrial Area.

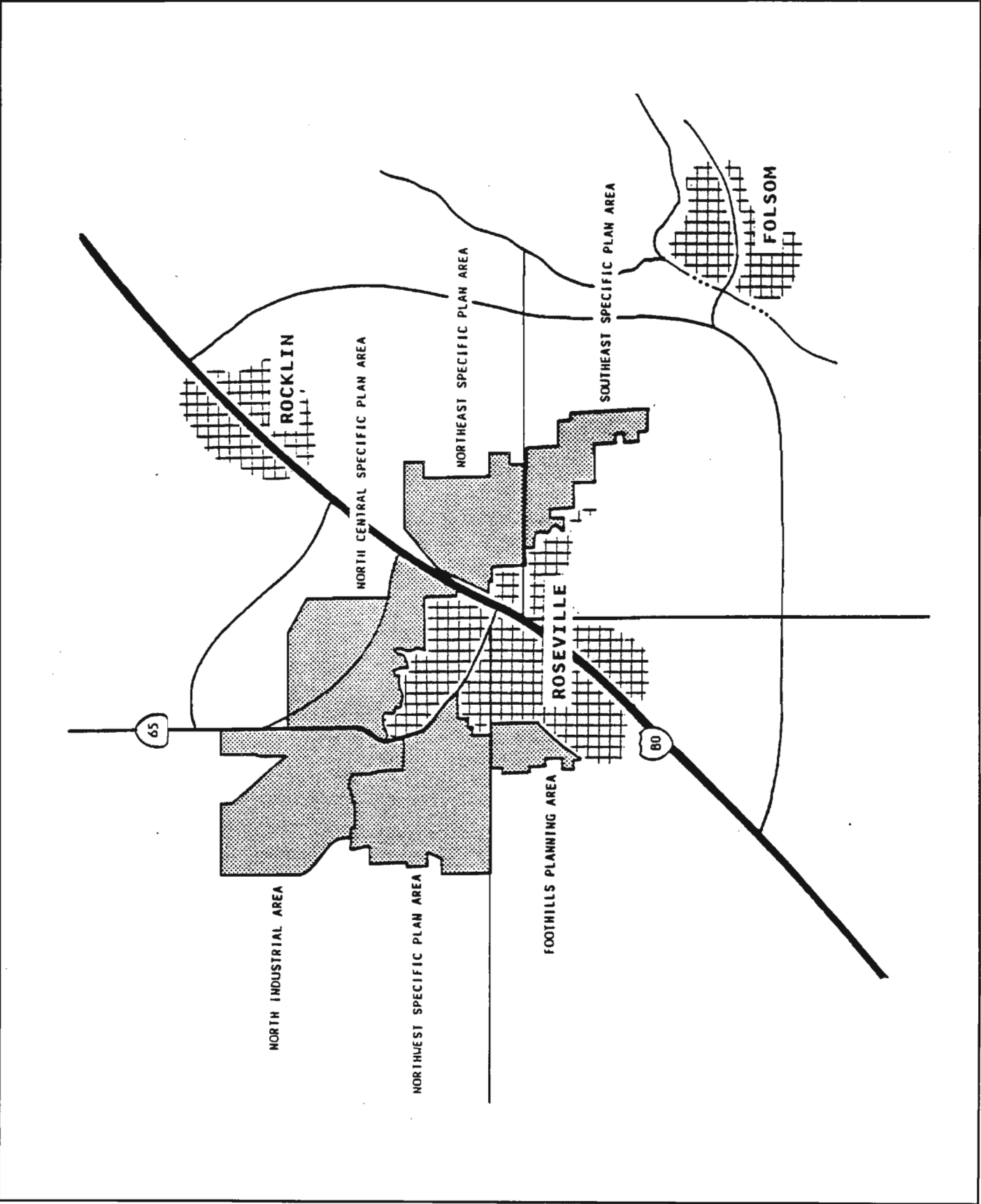
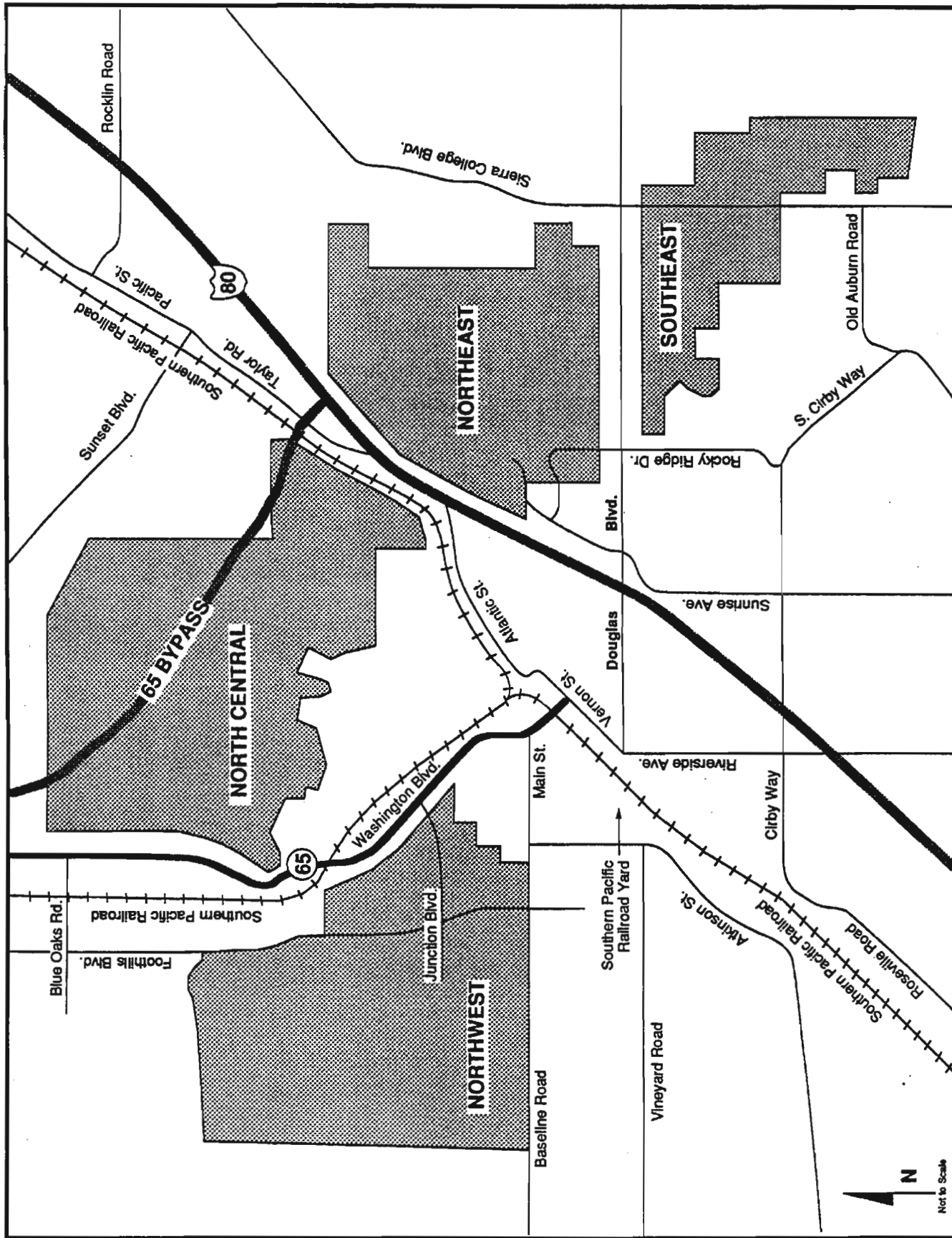


Figure 3.6-2

City of Roseville, Specific Plan Areas



The general goal of the proposed Specific Plan for development of the North Central Plan area is to proceed "in a manner consistent with the policies of the City and the characteristics and limitations of the land."

The proposed North Central Specific Plan designates the following land uses: residential, commercial, business park/commercial, business professional (B-P), regional commercial, highway commercial, light industrial, park, park/preserve, wetland mitigation area, lower watershed preserve, and urban reserve. The remainder of the lands are allocated to PG&E; a fire station; an electrical substation; schools, including two elementary schools (K-6), an intermediate school, a continuation school; and various road rights-of-way (ROWS). Table 3.6-1 shows acreages associated with all of these areas and Figure 3.6-3 shows their locations.

Proposed land use designations were developed based on existing site constraints such as geology (Mehrten formations), watershed areas, existing roadways, and potential or previously identified natural areas in need of preservation.

Residential Land Use

Residential land use covers 520 acres of the approximately 2,315 total acres or a total of 23 percent of the Specific Plan area. Table 3.6-2 presents residential acres by housing unit type.

General Plan policies specify siting requirements for averages of 3, 10, and 15 dwelling units per acre. The Specific Plan, as can be seen in the table, calls out seven different densities per acre, including six additional densities to fill needs currently unfilled in the City's housing supply at 4, 5, 6, 8, 12, and 20 dwelling units per acre.

The western and southern portions of the Plan area have been designated for low-density, single-family dwellings due to compatible topography, developable soils, and access to required public services. The Specific Plan designates four single-family residential "neighborhoods" (Figure 3.6-4). Each neighborhood includes a park and a school, and in Neighborhood B, a commercial center.

Proposed Specific Plan policies for the single-family residential neighborhoods are to separate the neighborhoods from other areas and buffer them from noise and traffic outside of the neighborhood. Policies include requiring buildings to be oriented away from through streets; thematic entries; sound wall designs; and use of open space buffers, arterial streets, fences, sound walls, berms, and boundaries to delineate the neighborhood. More than half of the proposed residential development would be high density.

Medium- and high-density residential units are primarily proposed to be in the remainder of the Plan area on the south side of Roseville Parkway. More than half of the proposed residential development would be high density.

TABLE 3.6-1
SPECIFIC PLAN LAND USES

Nonresidential Land Use		Acres
<u>Business/Commercial Uses</u>		
Business-Professional/Commercial		74.1
Business-Professional		143.2
Commercial		68.5
Regional Commercial		207.8
Light Industrial		189.3
Parks		66.1
Park Preserve		48.9
Wetland Mitigation Area		14.2
Lower Watershed		111.9
Schools (K-6)		16.0
Schools (7-8)		15.5
Electrical Substation		0.5
PG&E		31.5
Fire Station		1.0
Rights-of-Way		87.93
Urban Reserve		718.9
TOTAL		1,795.33
 <u>Residential Land Use</u>		
	<u>Dwellings</u>	<u>Acres</u>
Low Density (0-5)	1,340.0	303.3
Medium Density (6-10)	546.0	70.0
High Density (10+)	2,522.0	146.6
Subtotal		519.9
TOTAL	4,408.0	2,315.23

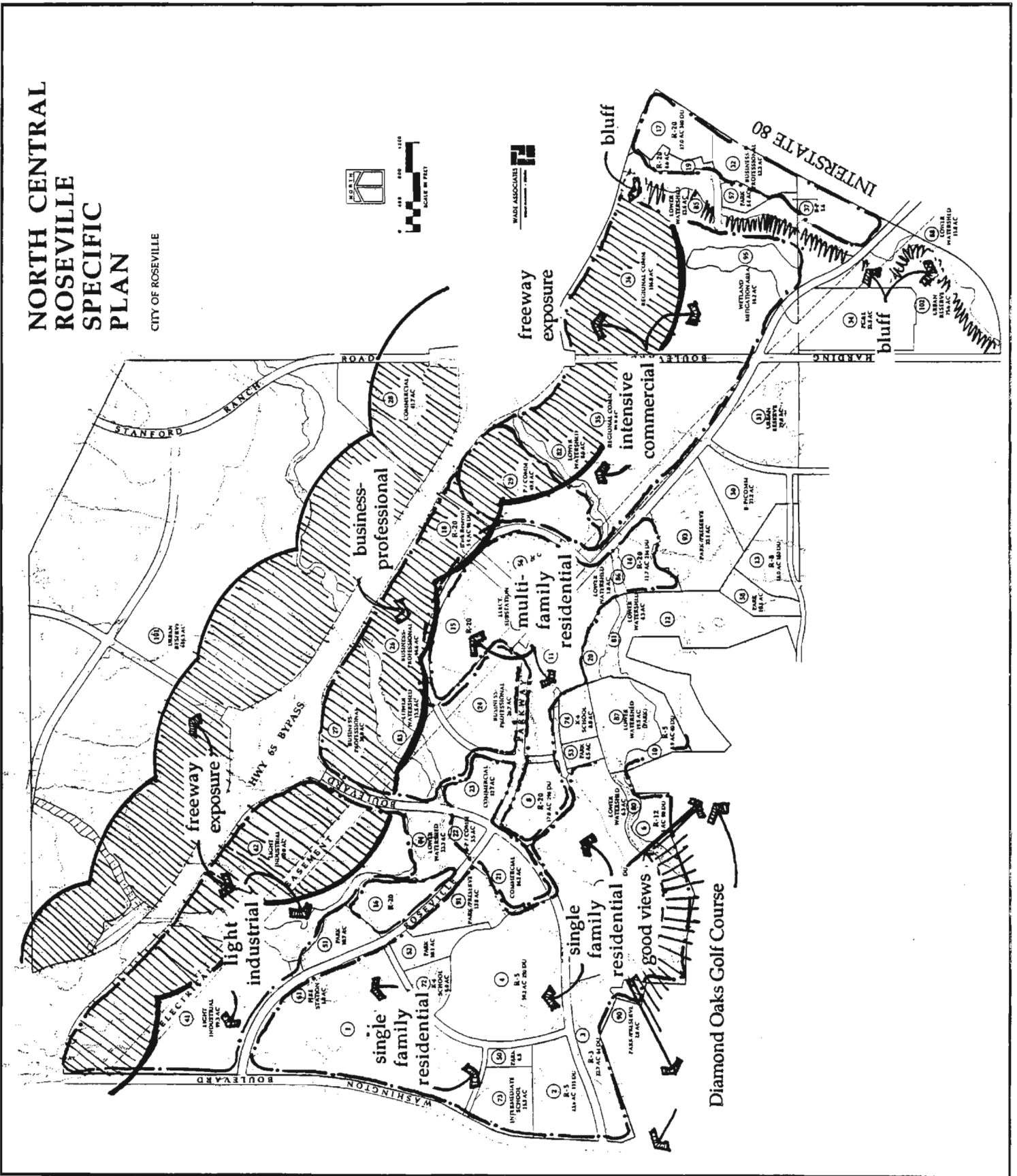
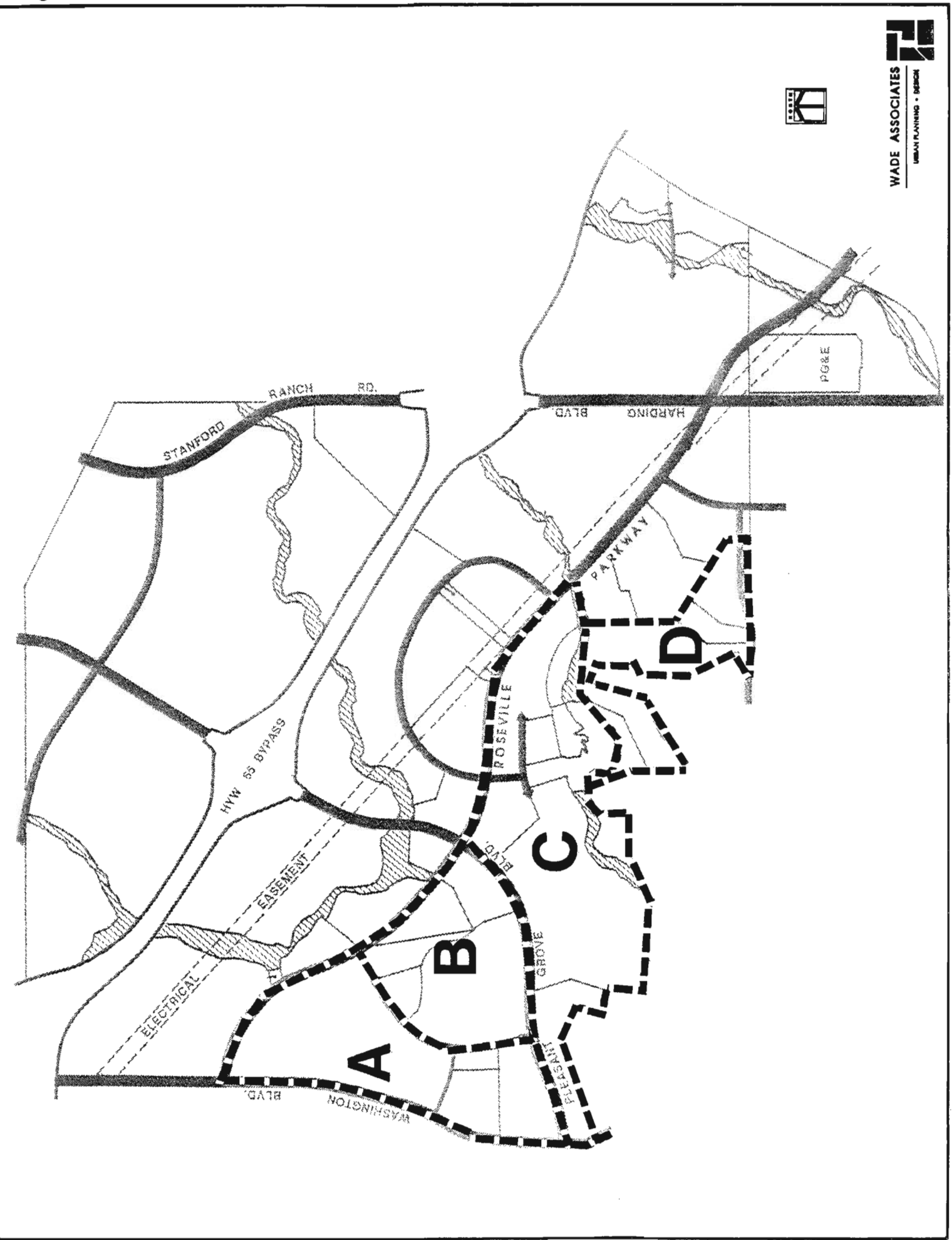


TABLE 3.6-2
RESIDENTIAL LAND USE

Density	Acres	Housing Units
R-3	22.7	64
R-4	94.4	365
R-5	186.2	911
R-6	52.0	366
R-8	18.0	180
R-12	7.5	90
R-20	139.1	2,432
R-20 Urban Reserve	0	0
TOTAL	519.9	4,408



The Specific Plan assumes that the use of alternative design approaches, such as zero-lot-line, cluster housing, patio homes, and multiplexes, will allow designated densities for medium- and high-density housing to be achieved despite the existing natural constraints, which most notably include the Mehrten formation substrates.

Proposed Specific Plan policies for attached and multifamily housing require developments to have common open space, buffers between residential and nonresidential uses, and separate pedestrian and automobile circulation systems.

Commercial Land Use

Regional Commercial

The Specific Plan states that "the key element of the Plan concept is the creation of an intense commercial core." Commercial development under the Specific Plan is intended to create a "satellite" downtown area for the entire South Placer region. The scale of commercial development will create an urban character.

Proposed commercial land use in the Specific Plan area consists of Regional Commercial, Commercial, Highway Commercial, and Business-Professional Commercial. Commercial land uses are proposed for a total of 350.4 acres or 15 percent of the total Specific Plan area. Except for a 14.3-acre neighborhood commercial site in Neighborhood B, none of the proposed commercial development would be located in the single-family residential neighborhoods. Commercial land uses, including a regional mall and office development designations, are intended to provide a regional commercial and employment center. The two sites designated as regional commercial are intended by the Specific Plan to establish a "strong urban identity at this location." This strong urban identity is to include "comprehensive urban design encompassing distinctive signature architecture."

The Specific Plan states that the regional commercial sites were chosen due to the size of the parcels, accessibility, future connections to regional public transit, and visibility. Discussion in the Specific Plan indicates that the Specific Plan area is closer to the expanding population base than the existing commercial centers, including downtown. The sites proposed for commercial development have numerous natural resource constraints which include the presence of hundreds of vernal pools. One regional mall site is adjacent to the Antelope Creek Corridor, an area of high-quality riparian oak woodland. These issues are discussed in more detail in the Vegetation and Wildlife sections.

Neighborhood Commercial

The Specific Plan proposes two neighborhood commercial sites (parcels 21 and 23), a total of 26.8 acres or 1 percent of the total Specific Plan area. One is located in Neighborhood B and one across the Roseville Parkway north of Neighborhood C.

Highway Commercial Land Uses

A 41.7-acre site is designated for highway commercial uses. This site is located by the Highway 65 Bypass.

Business-Professional/Commercial Land Uses

There are 74.1 acres of the Specific Plan area proposed for a mix of business-professional/commercial land uses. All of these parcels are located at street intersections with other commercial uses.

Business-Professional Land Uses

Five parcels in the Specific Plan area are designated for business-professional uses, a new use designation that the Roseville General Plan directs be added through a General Plan amendment. This is a total of 143.2 acres, or 6 percent of the Specific Plan area. According to the Specific Plan, the sites chosen for business-professional land uses were chosen primarily for their high level of visibility from the highway. Parcels 26 and 27 are also adjacent to natural drainage ways (lower watersheds) which Specific Plan policies proposed be incorporated as visual amenities for developments.

The Specific Plan discusses two type of tenants expected for Business-Professional developments: a single large tenant and a multi-tenant user. Developments within the business-professional designation are required by Specific Plan policies to be designed as planned unit developments in order to achieve design unity and continuity. Some of the potential businesses which could be included in this land use designation are the following services: attorneys, accountants, mechanical services, insurance, travel agencies, and similar services and general office uses.

Light Industrial Land Use

The Specific Plan designates two large parcels (parcels 41 and 42) for light industrial use. This is a total of 189.3 acres, or 8 percent of the total Specific Plan area. The Specific Plan states that these areas are intended to serve as an industrial center for South Placer County, and the Cities of Roseville and Rocklin in particular.

One of the light industrial sites will have access to Washington Boulevard and Highway 65, as well as to the Roseville Parkway. The other site will have access only to Highway 65 via Pleasant Grove Boulevard and to the Roseville Parkway. Both parcels are relatively flat and are located adjacent to Highway 65 where industrial development can act as a noise buffer for other land uses.

It is discussed in the Specific Plan that large primary users and small users both will be attracted to the proposed sites. It is proposed in the Specific Plan that the small parcel industrial subdivisions be developed under planned development guidelines to insure continuity.

The Specific Plan policies governing light industrial land use states that "all light industrial areas shall be provided with frontage on a secondary collector street internal to the Plan area." The Specific Plan intends that the surrounding proposed residential uses will be adequately buffered from the industrial uses by arterial streets (Roseville Parkway) and natural drainage channels.

Other Land Uses

Under this designation are included those areas not in the category of private use, including the public and quasi-public uses; spaces required for infrastructure and circulation; and such activities as day care centers, churches, and private racquet clubs. The Specific Plan states that these uses shall "utilize the same general development standards as incorporated in adjacent uses or projects."

Urban Reserve Land Use

The urban reserve land use areas (parcels 31, 101, and 102) total 730.7 acres or 32 percent of the total Specific Plan area. These areas are intended to provide a location for the allocation of dwelling units that are "surplus" or in excess of the nominal density assigned elsewhere in the Specific Plan and to allow future commercial expansion.

Urban reserve lands also work as available land for the reallocation of other land uses not currently shown in the Specific Plan and for the application of a density bonus area for low-income households. It is also open for other incentive programs in order to achieve affordable housing.

There are no governing policies specified in the Specific Plan for the urban reserve parcels, although any land use in the Specific Plan area is subject to the policies of the Specific Plan.

Parks/Preserves and Open Space Land Uses

The Specific Plan calls for 66.1 acres of active parks in seven locations throughout the Specific Plan area (parcels 50-53, 56-58). In addition to these areas, there are 48.3 acres of designated Park/Preserve (parcels 90-93), 14.2 acres designated wetlands mitigation area (parcels 95-96), and 112.9 acres designated lower watershed preserve.

Three of the proposed park sites are located in association with schools (parcels 51-53) and two are in association with what the Specific Plan map calls Park/Preserves. One site (parcel 53) is associated with the lower watershed designated in the Specific Plan (parcel 87). Parcel 18 is listed for both high-density housing and park preserve.

The Specific Plan contains policies regarding the use of both wetlands mitigation areas and floodplain areas (lower watershed areas).

Schools

There are three school sites designated within the Plan area, one intermediate school (parcel 73) and two elementary schools, grades K-6, (parcel 72 and parcel 74). Each is sited adjacent to a park, with the potential for joint school/park use. School sites total 31.5 acres or 1 percent of the Specific Plan area.

The locations of parcels 72 and 74, the two elementary school sites, serve the western portion and the central/eastern portion of the proposed residential development, respectively.

Power Line Easements

Power easements transect the Specific Plan area and occupy approximately 110 acres or 5 percent of the total Specific Plan area.

IMPACTS AND MITIGATION MEASURES

⌘ Potential internal land use conflicts between light industrial and residential uses

Commercial, business-professional, and light industrial land uses proposed in the Specific Plan are generally situated in accordance with the policies of the Land Use Element of the Roseville General Plan. An exception to this is the location of light industrial across Roseville Parkway from R-5 single-family housing near Washington Boulevard. Traffic, noise, and the intensity of activity on light industrial sites can adversely affect adjacent residential neighborhoods. Such a situation poses the potential for land use conflicts. This is a *potentially significant impact*.

Mitigation Measures

Implementation of Mitigation Measures 3.6-1 through 3.6-4 will reduce project impacts to less-than-significant levels.

Mitigation Measures Included in the Specific Plan

3.6-1 *Implement policies in Specific Plan Sections 3.4, 2.4, 2.5, 2.6, and 2.8 which relate to land use conflicts between residential and industrial land uses.*

The Specific Plan proposes the following measures to reduce conflicts between residential and industrial land uses:

Section Policy

- | | | |
|-------|---|---|
| 8.4 | 1 | A six-foot solid masonry wall shall be provided along single-family residential areas adjacent to arterials and between residential neighborhoods and nonresidential uses, and a six-foot solid wood fence adjacent to collector streets, to provide visual screens and acoustical barriers as illustrated in Figure 38, Arterial Landscape Illustration. |
| 2.4.3 | 3 | Each residential area is inwardly oriented, away from heavily travelled streets with back and side property lines that abut adjacent arterial streets. Walls are used to provide visual privacy and attenuate traffic noise, where appropriate. Pedestrian access must occur in the fence at intervals or not less than 1,000 linear feet, or an average of 600 linear feet along the perimeter of a village. |
| 2.4.5 | 7 | Buffering between multifamily development and major roadways, or nonresidential uses shall be provided by setbacks, sound walls, landscaping, and berming, or a combination of all these. |
| 2.5.4 | 7 | Commercial projects adjacent to single-family residential land use will be subject to performance conditions as part of the project review process. Such standards may include, but are not limited to, noise generation, hours of operation, types of use, delivery times, etc. |
| 2.6.1 | 9 | Projects adjacent to single-family residential land use will be subject to performance conditions as part of the project review process. Such standards may include, but are not limited to, noise generation, hours of operation, types of use, delivery times, etc. |
| 2.8.2 | 9 | Industrial uses adjacent to Roseville Parkway will provide a sound wall and berm. |

Other policies call for screening of mechanical equipment and measures to prevent light and glare affecting adjacent residential land uses.

In addition, the Specific Plan is designed so that parks will provide a buffer between residential uses and major streets, especially the Roseville Parkway.

Mitigation Measures Recommended by the EIR

- 3.6-2 *Noise shall not exceed sixty (60) dBA Ldn for single-family residential areas. (Mitigation Implementation Responsibility: City of Roseville)*

Noise readings shall be taken from the closest residentially-zoned or used property. Readings shall be taken as close to the noise source as possible without being in a required rear or side yard area.

- 3.6-3 *The use of toxic or hazardous materials requiring the filing of a business plan for emergency response per Section 25503.5 of the California Health and Safety Code shall be critically analyzed when considering any use. (Mitigation Implementation Responsibility: City of Roseville)*

Uses which utilize materials classified as "acutely hazardous materials" as defined in Section 25532(a) of the California Health and Safety Code are prohibited.

- 3.6-4 *Approval of conditional use permits for uses which require business plan for emergency response shall require a full range of review, management techniques, and identification of disposal methods for hazardous materials (Mitigation Implementation Responsibility: City of Roseville):*

- Planning Commission review of business plan for emergency response.
- A complete list of all hazardous and toxic materials including an analysis of the potential acute short-term and chronic long-term health hazards and toxicological effects upon children and residents in the area. This analysis shall be conducted by a person with knowledge of hazardous and toxic materials.
- Procedures for mitigating sudden release emissions of toxic substances and ground water monitoring.
- Identify methods of hazardous waste disposal.
- Other information deemed necessary by the Planning Department.

Requirements for submittal of a public administrative hearing, and conditional use permit not associated with businesses plan for emergency response are:

- A complete list of all hazardous and toxic materials and quantities to be used on site with MSDS for all materials.
- Applied uses of all hazardous and toxic materials including description of procedures on used site.
- 300-foot radius list.

The Findings for approval of conditional use permits and administrative review regarding hazardous materials shall be:

- No significant present or potential hazard to human health and safety or to the environment if all regulated materials on site were suddenly released into the environment.
- Continuing use of the regulated toxic or hazardous materials on site does not pose any greater health hazard than that which presently exists on adjacent residential property.

❖ **Potential impacts on parks located on the Roseville Parkway**

The smaller parks located directly on the parkway (parcels 51 and 52) might also have their use adversely affected by the noise and traffic hazards from the parkway. This is a *potentially significant impact*.

Mitigation Measures

Implementation of Mitigation Measures 3.6-5 and 3.6-7 will reduce project impacts to less-than-significant levels.

Mitigation Measures Identified in the Specific Plan

3.6-5 *Implement design standards identified in Specific Plan Section 7.5.*

Mitigation Measures Recommended by the EIR

3.6-6 *Ensure access to the park on parcel 52 from the residential area to the south other than Roseville Parkway. (Mitigation Implementation Responsibility: City of Roseville, Developer)*

3.6-7 *Ensure that park facilities constructed on parcel 51 are located at the north side of the parcel or that a landscaped berm is constructed in the setback area to reduce noise. (Mitigation Implementation Responsibility: City of Roseville, Developer)*

❖ **Potential impacts on residential areas proposed to be located adjacent to highways**

The proposed 22 acres of high-density residential development on the far eastern border of the project will be located adjacent to Highway 65 and I-80 and the SPRR tracks. This location is not desirable for residential development, given its location near the noise and traffic of the freeways and behind the proposed regional commercial center. This is a *significant impact*.

Mitigation Measures

Implementation of Mitigation Measure 3.6-9 will reduce project impacts to a less-than-significant level:

Mitigation Measures Identified in the Specific Plan

3.6-8 *None identified.*

Mitigation Measures Recommended by the EIR

3.6-9 *Explore alternatives to residential development on parcels 17 and 19 and perform additional noise analyses onsite. (Mitigation Implementation Responsibility: City of Roseville)*

⌘ **Continued deterioration of the downtown commercial and business community**

Continued development of major commercial and business professional uses in the outlying areas of the City could contribute to an overall decline in the downtown commercial and business community. An evaluation by Economics Research Associates (ERA), January 18, 1989, contained in the Technical Appendix to the DEIR concluded that the downtown area's deterioration would not be increased by the proposed regional commercial center. An addendum to that report, see Appendix K, indicates that the proposed office uses should not compete directly with the office uses which locate in the downtown. Additionally, if the Redevelopment Plan is adopted, a percentage of revenues generated from parcel 36 (which is located within the Redevelopment area) would be allocated to the Redevelopment Agency to improve public works, expand transit services, refurbish commercial facades, and provide more low and middle-income housing. This impact is *less-than-significant*.

Mitigation Measures

Mitigation Measures Identified in the Specific Plan

3.6-10 *None identified.*

Mitigation Measures Recommended by the EIR

3.6-11 *None required.*

⌘ **Significant change in land use development under the Specific Plan will result in a change in the character of the area from open space and agricultural uses to urban uses**

Given the scale and intensity of proposed development, this will be a *significant unavoidable impact*.

Mitigation Measures

Implementation of Mitigation Measure 3.6-13 will not be sufficient to reduce impacts to less than significant.

Mitigation Measures Identified in the Specific Plan

3.6-12 *None identified.*

Mitigation Measures Recommended by the EIR

3.6-13 *None available.*

Measures described in the Visual Impacts section of this EIR will serve to make new development more compatible with the area, but the impacts of the change from open space to regional commercial, industrial, and office uses, in addition to residential uses, cannot be mitigated.

ENDNOTES

City of Roseville General Plan, Roseville, California, June 1977 (Amended 1983, 1984, 1985, 1988).

Administrative Review Draft North Central Roseville Specific Plan, City of Roseville, February 6, 1989.

North Central Roseville Specific Plan Downtown Retail Impact Study, Economic Research Associates, January 18, 1989. Prepared for Technical Appendix of DEIR for Roseville North Central Specific Plan, prepared by R.C. Fuller Associates, February 6, 1989.

3.7 TRAFFIC

SETTING

Existing Transportation Facilities

The Plan area is located on the fringe of the urbanized area of Roseville and, until recently, roadway access has been limited. Recent completion of the Highway 65 Bypass has improved access to and through the NCRSP area. However, this is the only existing roadway within the area and currently there is no interchange on the bypass within the Plan area.

Figure 3.7-1 shows the existing principal roadways in and around the project area. These include: Interstate 80, the Highway 65 Bypass, Washington Boulevard, Douglas Boulevard, Riverside Avenue, Atlantic Street, Taylor Road, and Cirby Way.

Roadways

The streets most immediately adjacent to the NCRSP area are Washington Boulevard, Atlantic Street, Taylor Road, Pacific Street, and Sunset Boulevard.

Freeways/Highways

Interstate 80 is a six-lane interstate freeway east of the North Central area. It widens to eight lanes at the Riverside Avenue interchange, approximately four miles south of the Plan area. Interstate 80 is the major transportation corridor in the region, and the primary commuter route between outlying areas and the Sacramento metropolitan area.

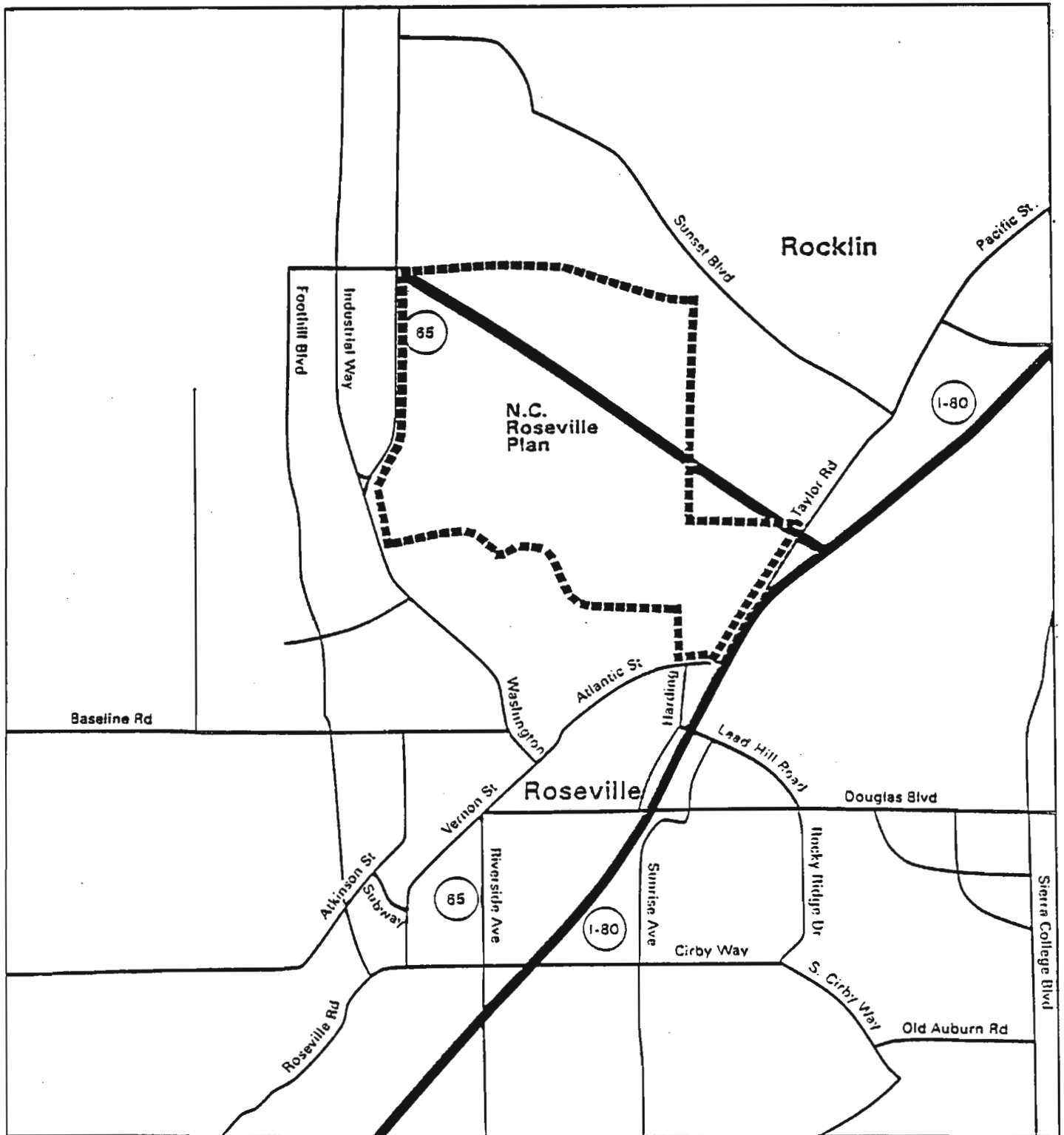
The Highway 65 Bypass replaces the previous Highway 65 route through downtown Roseville, connecting with Interstate 80 just north of Taylor Road and traveling west to an interchange with Washington Boulevard near Blue Oaks Road. Between these points, the Bypass is a four-lane express way.

Roads

Prior to construction of the Highway 65 Bypass, the designated route for Highway 65 continued through downtown Roseville as Washington Boulevard. Now, while it remains the major access into downtown from the north, Washington Boulevard primarily serves local traffic. Between downtown Roseville and Junction Boulevard it is a four-lane arterial with a grade-separated underpass of the SPRR tracks. After Junction Boulevard, Washington Boulevard is a two-lane arterial north to Lincoln. Although the roadway is parallel to the western side of the NCRSP area, there is no access into the area from Washington Boulevard.

Existing Roadways and Project Location

Figure 3.7-1



Foothills Boulevard and Blue Oaks Road are located to the west of the Plan area. These streets are being constructed and widened as development occurs along their frontage. Each is currently at least four lanes throughout.

Several important streets are located to the south of the Plan area. Two of the most heavily used are Douglas Boulevard and Riverside Avenue, both intersecting Interstate 80. Atlantic Street is a key roadway through the downtown portion of Roseville, and provides the principle access to the downtown area from Taylor Road and Harding Boulevard. Cirby Way does not impact access to the Plan area directly; however, it provides the only I-80 overpass south of Douglas Boulevard. Consequently, Cirby Way carries a large amount of traffic bound for Interstate 80 via Riverside Avenue.

Intersections

The existing intersections that were examined for this section are Douglas Boulevard/Sunrise Boulevard, Riverside Avenue/Cirby Way, Douglas Boulevard/Harding Avenue, Cirby Way/Sunrise Boulevard, Douglas Boulevard/Rocky Ridge Road, Douglas Boulevard/Sierra Gardens, Douglas Boulevard/Santa Clara, Junction Boulevard/Washington Boulevard, and Foothill Boulevard/Baseline Road.

Other

Railroads

There are two fingers of the Southern Pacific Railroad (SPRR) line that affect the Plan area. One runs parallel to Atlantic Street and Taylor Road. The second follows Washington Boulevard north to Industrial Way and continues between Industrial Way and Foothill Boulevard. Consequently, while the Plan area is contiguous to existing neighborhoods in Roseville, it and the entire north side of the City are separated from the downtown by the Southern Pacific Railroad. The SPRR separates the Plan area from Atlantic Street and Interstate 80, as well.

Light Rail System

A light rail system runs between Sacramento and areas along the Highway 50 and I80 corridors. Extending the system as far as Roseville has been suggested as a means to reduce peak hour volumes between the South Placer region and Sacramento. Regional Transit recently initiated a planning study to identify potential corridors for light rail extension. The City of Roseville has expressed interest in having additional planning undertaken to identify potential alignments to, from, and within the City. For example, light rail could travel north along the SPRR tracks to a planned intermodal facility, then along Harding Avenue to the regional mall site.

Transit Programs

There are three transit programs in Roseville: Roseville Area Dial-A-Ride (RADAR), Roseville Urban Shuttle (RUSH), and a Commuter Service. RADAR presently serves all areas within the municipal limit, including the Plan area. Consequently, as development occurs in the NCRSP area, this service would be immediately available. The RUSH program provides regular service along established routes within the City. As the City grows, RUSH anticipates being able to expand routes into new areas. The RUSH program is coordinated with transit services in other municipalities and, through an established transfer program, can be used to travel throughout the Sacramento metropolitan area. In 1987, the City initiated a daily Commuter Service which serves established routes in Roseville and downtown Sacramento during the peak commute periods. Users of this service can obtain transfers to and from RT in the Sacramento area.

Bicycle and Pedestrian Paths

Roseville's Circulation Element mandates the creation of a bicycle trail network which the City Council approved in concept in May 1989. The bicycle paths will be on surface streets, through schools and parks, and along approximately eight miles of creekbed in the Infill areas. Ultimately, this will link the entire City.

At present, no bicycle paths exist in the Plan area. Lanes in the Southeast and Northeast Plan areas are already striped. The Northeast Plan also has Class I bicycle paths along Miner's Ravine which will be open to the public, along with the roadways, on July 11, 1989.

Traffic Volumes

Freeways/Highways

As shown in Figure 3.7-2, Interstate 80 carries 65,000 to 98,000 average daily trips (ADT) through the Roseville area. The Highway 65 Bypass has an ADT of 15,000.

Roads

Table 3.7-1 presents the capacities used in this section. The actual volumes for individual streets are shown in Figure 3.7-2. Douglas Boulevard carries 54,000 ADT just east of the freeway, but only 39,000 on the west side of the interchange. Immediately north of Interstate 80, Riverside Avenue carries 35,000. As shown in Table 3.7-1, Douglas Boulevard and Riverside Avenue, both four-lane facilities, operate at or above their maximum ratings at their highest volume locations.

Washington Boulevard carries an average daily traffic volume of 26,000 at the railroad crossing south of Main Street and operates at 80 percent to 90 percent of its maximum rating near Main Street.

Traffic Volumes for Existing Roadways

Figure 3.7-2

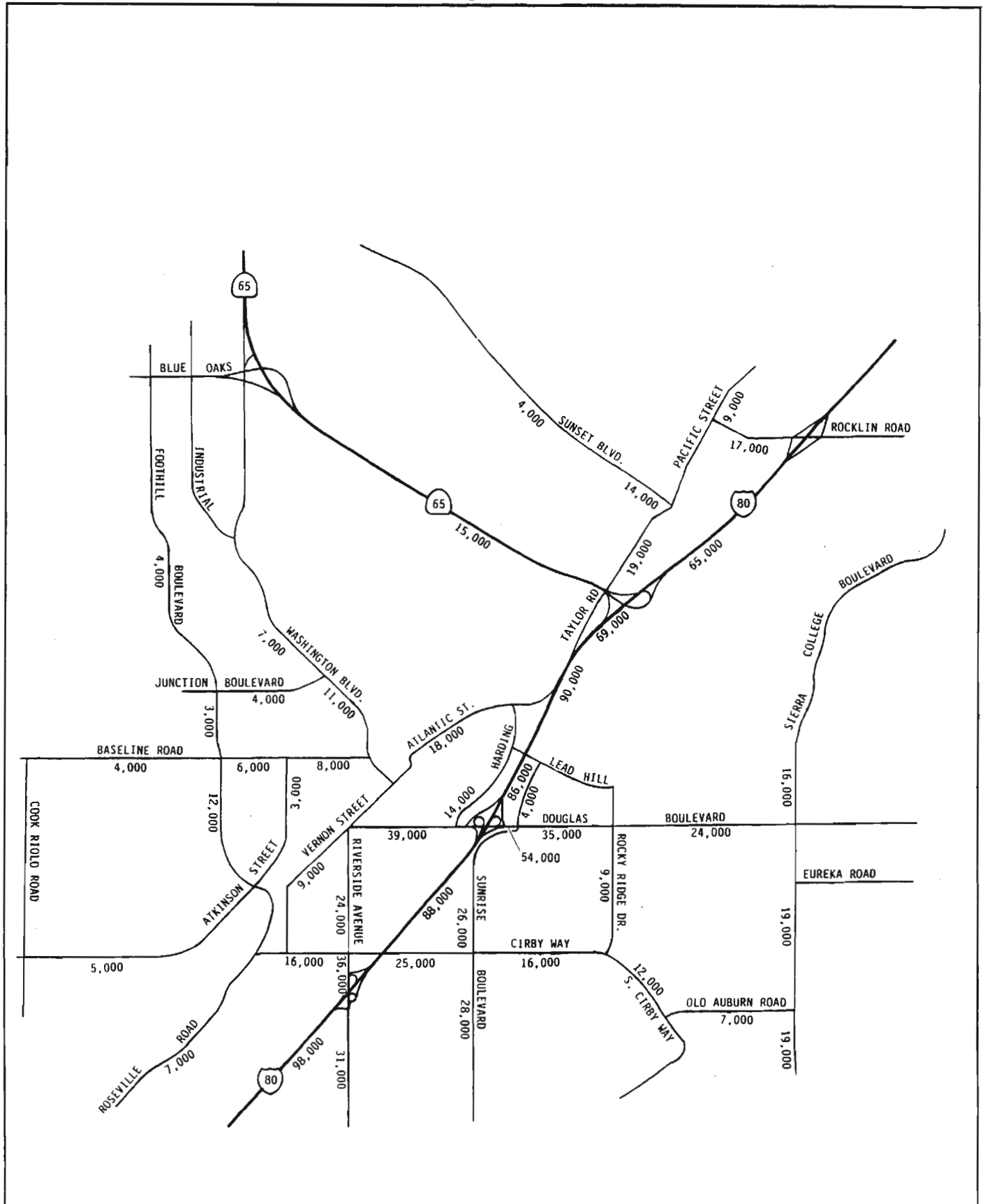


TABLE 3.7-1
ROADWAY CAPACITIES

Roadway Type	Number of Lanes	Facility Capacity	
		Vehicles per Day Both Directions	Vehicles per Hour Each Direction
Minor Arterial	2	16,000	700
Major Arterial	4	32,000	1,800
	6	48,000	2,700
Expressway	4	52,000	2,400
	6	78,000	3,500
Freeway Mainline	6	108,000	6,000
	8	144,000	8,000
	10		10,000
Freeway Ramp			
Loop	1		1,450
	2		2,600
Linear	1		1,700
	2		3,400

SOURCE: R. C. Fuller Associates

Atlantic Street presently conveys 18,000 ADTs west of Harding Boulevard. It has reached its maximum capacity as a two-lane street.

Cirby Way immediately west of Riverside Avenue carries an ADT volume of 16,000 to 21,000, making it one of the heaviest used roadways in the City.

Based on their daily traffic volumes, sections of Douglas Boulevard, Riverside Boulevard, Sunrise Boulevard, and Atlantic Street were identified as operating at or near their capacities. These situations normally translate to high levels of traffic congestion and reduced Levels of Service, at least during peak commutes.

Intersections

Peak Hour Trips/Levels Of Service

The criterion for assessing adequacy of intersection operation was based on the "Level of Service" (LOS) concept as defined in the 1985 Highway Capacity Manual. Peak-hour traffic congestion is described in terms of Levels of Service at critical locations. This relates the volume/capacity (V/C) ratio of an intersection to the expected amount of delay which motorists will experience. Table 3.7-2 gives the correlation of V/C ratios to Level of Service and delay. The relationships between V/C and LOS are only approximate, and have been demonstrated to be conservative. Figure 3.7-3 describes some of the characteristics of each LOS.

Table 3.7-2 gives the rating system normally used for Levels of Service at signalized intersections. Levels of Service A, B, and C generally represent low to moderate levels of congestion. Level D represents conditions which are moderate and are considered objectionable by some motorists. LOS E identifies an intersection that is operating near its full capacity and at which long delays are likely to be experienced during peak traffic hours. LOS F, with volume/capacity ratios of about 1.0, indicates that the intersection operates at its full capacity for at least 15 minutes each day. Volume/capacity ratios significantly greater than 1.0 reflect cases in which the intersection operates at full capacity with long traffic delays for one hour or more on typical weekdays. The City of Roseville has specified a goal of LOS C and a volume/capacity ratio of less than 0.80, as defined in the 1985 Highway Capacity Manual, for all intersections in the City.

As with the street capacities given in Table 3.7-1, the LOS ratings in Table 3.7-2 are generally found to be conservative. For example, an intersection with a V/C ratio calculated using planning techniques to be 0.85 can operate with less than 25 seconds of average delay. This corresponds to LOS C conditions rather than LOS D. However, as with basic street analysis, this study uses conservative techniques (and has used a V/C ratio of 0.8 to define the transition from LOS C to D) to evaluate intersection operating performance. The rating system presented in Table 3.7-2 provides a margin of safety in predicting future intersection Levels of Service and to remain consistent with previous studies in the Roseville area.

TABLE 3.7-2
LEVEL OF SERVICE DEFINITIONS

Level of Service	Typical V/C Ratio	Stopped Delay (sec/vehicle)
A	0.00 - 0.59	0 - 5
B	0.60 - 0.69	5 - 15
C	0.70 - 0.79	15 - 25
D	0.80 - 0.89	25 - 40
E	0.90 - 1.00	40 - 60
F	1.00+	> 60

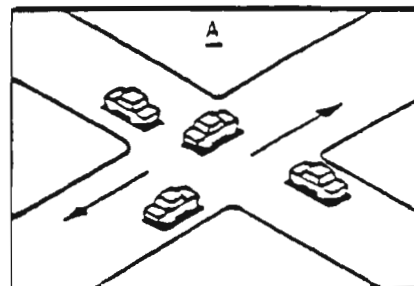
SOURCE: R. C. Fuller Associates

Level of Service Diagram

Figure 3.7-3

LEVEL OF SERVICE A *Volume/Capacity Ratio= 0 - 0.59*

- Free flow conditions
- No vehicle waits longer than one signal indication

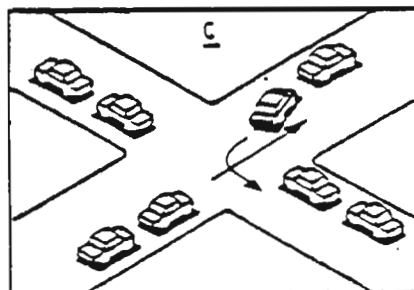


LEVEL OF SERVICE B *Volume/Capacity Ratio=0.60 - 0.69*

- Stable traffic flow
- Motorists rarely wait through more than one signal indication

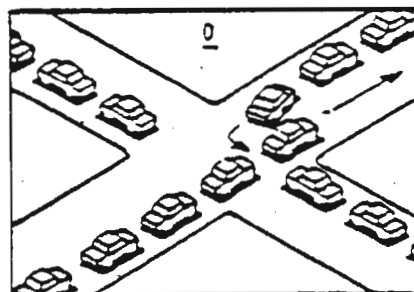
LEVEL OF SERVICE C *Volume/Capacity Ratio=0.70 - 0.79*

- Stable and acceptable flow but speed and maneuverability somewhat restricted due to higher volumes
- Motorists intermittently wait through more than one signal indication
- Occasional backups behind left turning vehicles



LEVEL OF SERVICE D *Volume/Capacity Ratio=0.80 - 0.89*

- Extensive delays at times
- Some motorists, especially left turners, may wait through one or more signal indications, but enough cycles with lower demand occur to prevent excessive backups
- Maneuverability restricted

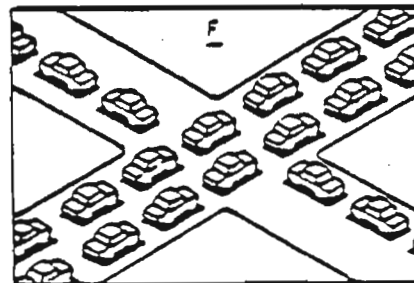


LEVEL OF SERVICE E *Volume/Capacity Ratio=0.90 - 0.99*

- Very long queues may create lengthy delays, especially for left turning vehicles
- Volume at or near capacity
- Unstable flow

LEVEL OF SERVICE F *Volume/Capacity Ratio=1.00 or greater*

- Backups from locations downstream restrict movement at intersection approaches
- Forced flow conditions
- Stoppage for long periods due to congestion
- Volumes drop to zero in extreme cases



The existing PM peak hour Levels of Service for critical intersections in Roseville are shown in Table 3.7-3. The table indicates that four intersections in the central and western part of Roseville are now or until recently have been operating at service levels worse than LOS C ($V/C > .80$). These intersections are Sunrise Boulevard/Douglas Boulevard, Douglas Boulevard/Rocky Ridge Road, Riverside Boulevard/Cirby Way, and Cirby Way/Sunrise Boulevard. With the exception of Douglas Boulevard/Rocky Ridge Road, all of these intersections are operating at capacity ($V/C > 1.0$).

Applicable General Plan Policies and Statutes

General Plan

Many of the improvements described in this section are contained in the Roseville General Plan, along with policies that address various forms of transportation generally, such as mass transit and bike paths. An analysis of the consistency between the Specific Plan and the General Plan is in Section 3.5, the Specific Plan is consistent with all traffic-related General Plan policies.

Table 3.7-4 shows the Circulation, Transportation, and Transit Elements of Roseville's General Plan.

Traffic Fee Ordinance

To generate enough revenue to finance roadway improvements made necessary by development, the Roseville City Council revised its traffic mitigation fee in January 1989. The fee ordinance is designed to generate over \$110 million for improvements to roads and intersections.

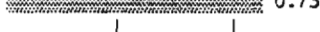
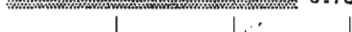
Before obtaining a building permit, a traffic fee must be paid. The fee is calculated per dwelling unit density or square foot. The revenue from the fee is dedicated to traffic facility improvements, including many of those detailed in this section.

Rideshare Ordinance

In 1983, the City of Roseville adopted Article 37 of the zoning code, more commonly known as the Rideshare Ordinance. The program and measures included in the Rideshare Ordinance were developed by the South Placer Policy Committee, and subsequently adopted by the various member municipalities. The principal emphasis of the ridesharing program is on employer implementation of measures encouraging ridesharing or similar Transportation System Management (TSM) measures.

TSM refers to a variety of measures used to reduce the number of trips on area roadways. There are two types of TSM measures. The first uses car pooling, bicycling, public transportation, and similar measures to reduce the overall number of trips. Another TSM approach redistributes trips to alleviate peak hour traffic problems. This second approach relies on such programs as flexible work hours and shifts.

TABLE 3.7-3
V/C Ratios for Existing Intersections

	LEVEL OF SERVICE					
	VOLUME/CAPACITY RATIO					
	A	B	C	D	E	F
	← 0.6	0.7	0.8	0.9	1.0	→
DOUGLAS BOULEVARD & SUNRISE BOULEVARD ¹						1.02
RIVERSIDE AVENUE & CIRBY WAY ¹						1.27
DOUGLAS BOULEVARD & HARDING AVENUE ²						0.77
CIRBY WAY & SUNRISE BOULEVARD ³						1.15
DOUGLAS BOULEVARD & ROCKY RIDGE ROAD ¹						0.85
DOUGLAS BOULEVARD & SIERRA GARDENS ⁴						0.73
DOUGLAS BOULEVARD & SANTA CLARA ⁴						0.76
JUNCTION BOULEVARD & WASHINGTON BOULEVARD ⁵						0.38
FOOTHILL BOULEVARD & BASELINE ROAD ⁵						0.23

NOTE: Traffic counts were taken by Fehr & Peers Associates or provided by the Roseville Public Works staff. Circular 212 Planning Method was used to calculate Level of Service.

¹ counted April, 1989

² counted October, 1986

³ counted May, 1989

⁴ 1985 counts adjusted to 1989 volumes

⁵ counted June, 1988.

TABLE 3.7-4

APPLICABLE ROSEVILLE GENERAL PLAN POLICIES

Circulation Element

1. For the City of Roseville, the Level of Service "C" shall be used in determining the roadway capacities and intersection delays for all freeway, arterial, and collector streets. For long-range development, Level of Service "C" need not be strictly maintained if other policies and action plans indicate that a lesser level of service may be acceptable on a short-term basis providing there are sufficient overriding considerations.
2. If an ultimate population of 92,000 is to be allowed in the City of Roseville, then the incremental growth of 22,000 to 27,000 additional people should be allocated on the basis of maintaining a balance of jobs and housing to minimize impacts on the intra-city road systems.
3. In order to meet the projected travel demands, major additional highway capacity (expressed as screenlines that are a composite of individual roadways within a corridor) that will be needed Citywide includes: eight highway lanes east of I-80, running in an east/west direction, to supplement existing capacity on Douglas Boulevard and Cirby Way; 12 additional lanes across I-80; six to eight lanes across the railroad tracks in the central area of Roseville; major improvements in highway capacity between I-80/Riverside Avenue and Subway undercrossing of the railroad; eight to twelve lanes in a north/south direction to supplement existing highway lanes in the northwest of the City on the existing Route 65 corridor between Baseline and Blue Oaks; six to eight lanes in an arc across the northern side of the City from Douglas Boulevard/Rocky Ridge Road to Highway 65; four additional highway lanes on the east side of the City in a north/south direction; and an east-west arterial system in the northwest of the City.
4. In order to met projected travel demands in the eastern area of the City, the following improvements need to be implemented (see Figures 1 and 2): Douglas Boulevard to six-lane arterial; Rocky Ridge Road to four-lane arterial; Sierra College Boulevard to four-lane arterial; possible need for improvements to Sunrise Avenue; North Cirby Way as four-lane arterial; and new two-lane roadway running north and/or west from Rocky Ridge Road/Douglas Boulevard, to connect across I-80 to north of the City.
5. In order to meet projected travel demands in the central area of the City, the following improvements need to be implemented (see Figures 1 and 2): Placer Center arterial overcrossing as four-lane arterial; new I-80 overcrossing as four-lane arterial; reconstruction of the subway undercrossing to a four- or six-lane highway; provision of two additional lanes across the tracks, somewhere between Route 65 and the southern City limit; major improvements to the approach roads on either side of the railroad, including Vernon Street, Cirby Way, and Riverside Avenue; and new Foothills Boulevard extension from Baseline Road to Riverside Avenue as four- or six-lane arterial.

TABLE 3.7-4

ROSEVILLE GENERAL PLAN POLICIES
(Continued)

6. In order to meet projected travel demands in the northwest area of the City, the following improvements need to be implemented (see Figures 1 and 2): Foothills Boulevard to six-lane arterial; Route 65 to four-lane arterial; Route A to four-lane arterial; Blue Oaks Road to six-lane arterial; four-lane arterial east of and parallel to Route 65; and six lanes of east-west arterial between Route A and Blue Oaks Road.
7. Based on the amount, location and timing of future growth in Roseville, specific roadway improvements should be implemented as indicated in Tables 1, 2, and 3 as follows.

Table 1 Improvements recommended through 1985. Facilities affected include Douglas Boulevard, Cirby Way, and the Harding Avenue/Atlantic Street intersection.

Table 2 Improvements recommended for 1985 through 1995. Facilities affected include Cirby Way, Douglas Boulevard, Foothills Boulevard, Route 65, and the 65 Bypass.

Table 3 Improvements recommended for 1995 through 2010. Facilities affected include Harding Boulevard, Douglas Boulevard, Foothills Boulevard, Blue Oaks Road, I-80, and Rocky Ridge Road.
8. In order to produce sufficient revenue to implement necessary roadway improvements, the traffic impact fee should be increased from 1 percent to 1.5 percent of construction value.
9. In order to monitor and evaluate the effects of development projects on the citywide roadway system, the Roadway Needs Manual Analysis Tool, as provided in Technical Memorandum 5 of the Roseville Traffic Circulation Study, by PRC Voorhees, shall be utilized.

Transportation Element

1. Provide a mass transit system that is suited in convenience and efficiency for the citizens of Roseville at a cost that is not prohibitive to any segment of the community.
2. Continue use of the Transportation Commission, to monitor the needs of the community in order to serve the largest possible number of citizens and provide the best possible transit system.

Transit Element

1. Develop a bicycle plan to be added to the City's General Plan.
2. Provide bicycle routes on major streets leading through the City and into outlying areas.
3. Provide an internal system leading to and from convenient shopping and public service areas.
4. Provide adequate bike lanes to allow children easy access to and from schools and recreation areas.

SOURCE: City of Roseville

The Roseville Planning Department is responsible for implementing the requirements of the ridesharing ordinance and providing assistance with compliance. Under the ordinance, businesses with 10 or more employees at a single work location, and lessors of work space where the collective number of employees or tenants is 10 or more, are required to implement measures which encourage TSM. The minimum required measures include posting of ridesharing information and annual distribution of information describing the Sacramento Rideshare Program. As the number of employees, or tenant employees, increases so does the number of TSM measures required. Additional requirements may include designation of a commute coordinator, provision of preferential parking for carpools and vanpools, and secure parking for bicycles.

Although the trip reduction goals of the TSM ordinance are clearly defined, it is not clear that such reductions have been achieved. Further, the magnitude of these reductions in the context of citywide traffic levels cannot be precisely defined. Based on research conducted by Caltrans, the Institute of Transportation Engineers, and Fehr & Peers Associates, the traffic reductions into and out of major employers' sites that can be reasonably realized by enforcement of the TSM ordinance are shown in Table 3.7-5. These figures are based on the assumption that 20 percent of commuters will voluntarily choose some form of TSM.

Potential trip reduction achievable through enforcement of the City Rideshare Ordinance was evaluated at two levels. The first level of TSM evaluated assumes enforcement of the Rideshare Ordinance only in the business/professional and light industrial uses of the Northwest and North Central Specific Plan areas, the North Industrial area, and City Infill. The second level of TSM implementation assumes trip reduction through enforcement of the ordinance in the business/professional and light industrial uses of all four Plan areas, the North Industrial area, and City Infill.

Transportation Plan

The most substantial policy in the ordinance is the required preparation of a Transportation Plan. According to the ordinance, a Transportation Plan is required to be submitted by every applicant for a conditional use permit, zoning change, or tentative subdivision map, or building permit by a new major project controller, or existing major project controller having over 200 employees at one common work location. Each Transportation Plan must include a description of the activity and operating characteristics of the proposed project (i.e., business hours and peak hours of traffic generation), an estimate of the commuting characteristics of the tenants and/or employees anticipated at the project site (i.e., travel distance and mode), and a transportation program made up of mitigation measures designed to achieve a reduction in trip generation. Businesses with 50 to 200 employees at a single work location, and lessors of work space where the collective number of employees of tenants is 50 to 200, are required to design a program which provides a 20-percent reduction in trips, and businesses or lessors with greater than 200 employees or tenant employees are required to achieve a 30-percent reduction in trips. Various combinations may be implemented to achieve the required trip reduction, including:

- ✱ Posting of ridesharing information
- ✱ Commuter matching service
- ✱ Designation of a transportation coordinator
- ✱ Development of an in-house carpool matching service

TABLE 3.7-5
PEAK HOUR TRIP REDUCTION

Type of Employment	Ridesharing	Flex Time	Total
Business/Professional	7 %	4 %	11 %
Industrial (General or Light)	7 %	9 %	16 %

SOURCE: Fehr and Peers Associates, Inc.

- ⌘ Support of a vanpool program
- ⌘ Subsidies for use of shuttles or buses
- ⌘ Transit pass subsidy provision of a transit shelter
- ⌘ Provision of preferential carpool/vanpool parking
- ⌘ Provision of secure bicycle parking facilities
- ⌘ Provision of showers and lockers
- ⌘ Charging of a parking fee
- ⌘ Implementation of variable working hours
- ⌘ Other programs which the applicant may desire

Each Transportation Plan must be submitted to the Planning Department for review. Plans then are forwarded to the Transportation Commission for review. Recommendations are made to the Project Review Commission, the Planning Commission and/or the City Council, whichever is appropriate. No project application subject to the provisions of this ordinance will be approved without approval of the Transportation Plan. Compliance with an approved Transportation Plan is included as a condition of approval, and may be included as a provision of a development agreement. Such an agreement will run with the property and bind all successors in interest. The provisions of the ordinance are administered and enforced by the Roseville Planning Department.

Planned Future Roadway Improvements

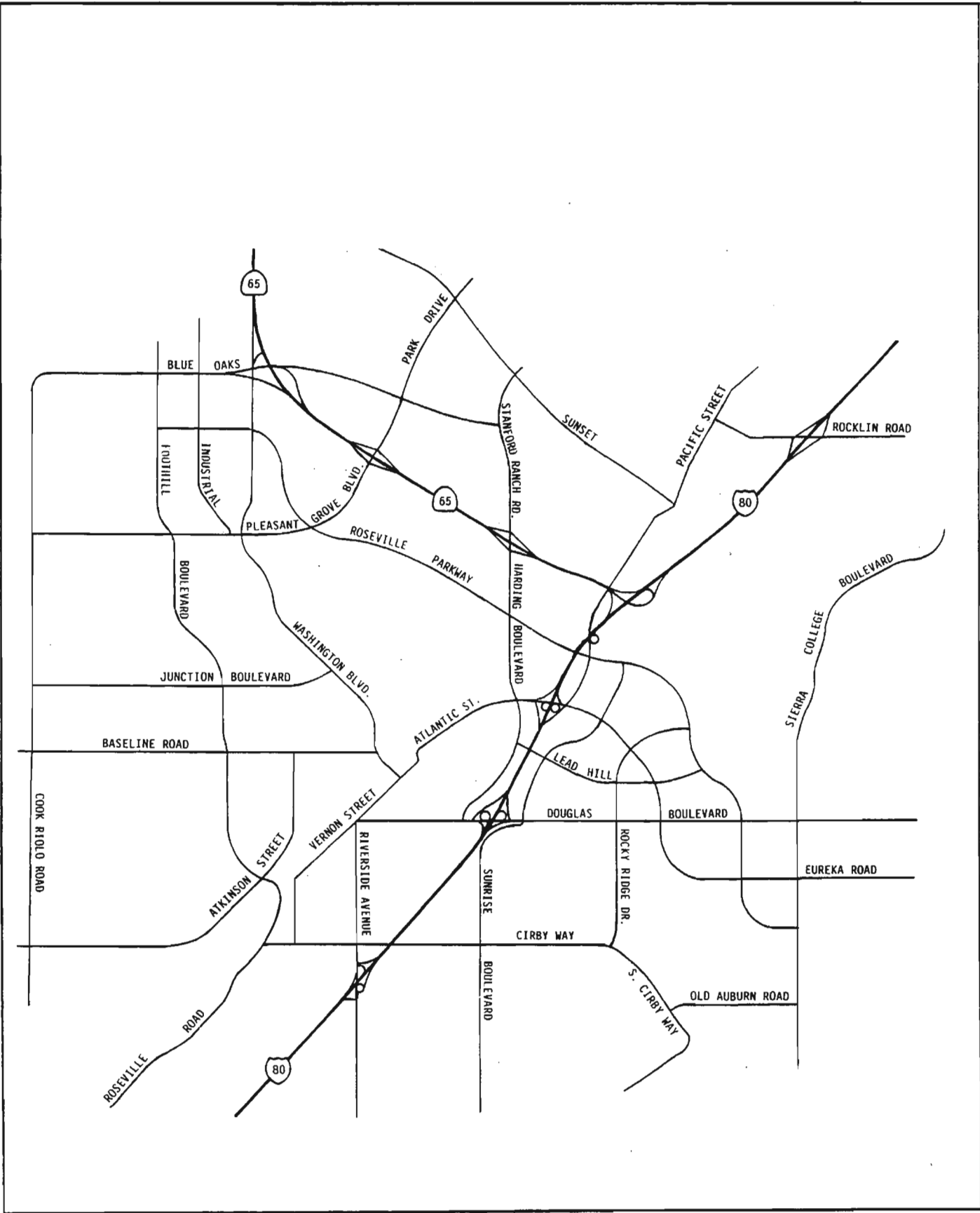
Significant roadway improvements are planned for the Roseville area. These include the following.

Freeways/Highways

The segment of Interstate 80 between Douglas Boulevard and the Highway 65 Bypass will be widened from six to eight lanes. Some segments will be supplemented with an auxiliary lane, forming five lanes in one direction. An interchange is under construction at Atlantic Street and Eureka Road with an off-ramp for Taylor Road. The Highway 65 Bypass will be upgraded to freeway status with construction of two interchanges within the Plan area.

Roadways

A number of additional roadway network expansions are planned as part of major Roseville and Rocklin development proposals. Key roadway facilities that are to be constructed to support the major growth areas are illustrated in Figure 3.7-4. The new facilities in North Central Roseville are Roseville Parkway, Pleasant Grove Boulevard, and the Harding Boulevard extension. All three are planned to become six-lane arterials or expressway facilities. Roseville Parkway is proposed to extend through several of the major areas in both east and west Roseville, but will not have an interchange at I-80. Pleasant Grove Boulevard will provide a connection between the Northwest and North Central Plan areas and direct access to the 65 Bypass. The Harding Boulevard extension will provide an additional grade-separated crossing of the railroad, and will connect the North Central Specific Plan area to the improved Atlantic Street/I-80 interchange. It will also provide direct access to the 65 Bypass



via a new interchange and will connect northern Roseville to the developing areas of Rocklin north of the Bypass.

IMPACTS AND MITIGATION MEASURES

Introduction

Analysis Methodology

The traffic forecasts were performed using the standard methodology for regional and subregional transportation evaluations in the Sacramento and South Placer area. The method involves two major processes:

1. Performing forecasts of future traffic volumes on all key facilities in the area, including freeway mainline sections and interchanges, and all principal surface streets and intersections; and
2. Analyzing the adequacy of the planned capacities of each individual facility, and estimating the expected Level of Service experienced by motorists and the needs for capacity improvements at critical locations.

Traffic Volume Forecasting

The traffic volume forecasting process employed for this study is similar to the process used by jurisdictions throughout the Sacramento region, and to the process employed in recent Specific Plan EIRs in Roseville. The process employs the three standard travel demand forecasting steps:

- Trip generation
- Trip distribution
- Traffic assignment

A microcomputer software package called "MINUTP" is used to execute these steps. This package was originally developed as a mainframe package ("UTPS") by the U.S. Department of Transportation. The microcomputer version is currently used by SACOG and Caltrans for regional transportation in the Sacramento region, and by staff and consultants to the City of Sacramento, Sacramento County and Placer County for major planning studies and EIRs. MINUTP has also been used in the recent EIRs for the Southeast, Northeast, and Northwest Roseville Specific Plan areas.

The Roseville model employs a process known as "windowing" or "focusing" to determine accurate volumes on individual streets and freeway segments, interchanges, and intersections. This involves performing traffic forecasts for the entire Sacramento region based on projected land uses, and then windowing to a more detailed street network and zone systems within the Roseville/Rocklin area. The results of the regional model indicate the volume of future traffic, unrelated to development in Roseville or Rocklin, using facilities such as I-80 to travel through the area. They also indicate the percentage of Roseville area residents who will work, shop and find other travel destinations within the South Placer area, and the percentage travelling out of the area for these purposes. These data are then used by

TABLE 3.7-6
CITY OF ROSEVILLE LAND USE FORECASTS, YEAR 2005

	Dwell. Units	Pop. ¹	Bus.- Prof. (acres)	Comm. (acres)	Light Indus. (acres)	Gen. Indus. (acres)	Reg. Comm. (acres)	Employ. ²
Existing Development ³	12,640	30,968	Existing nonresidential acres not available					14,500
New Development								
Citywide Infill ⁴	1,800	4,680	5	27	40	34	0	1,366
Foothills Infill ⁴	500	1,300	4	5	45	0	0	821
North Central	2,724	7,082	105	80	122	0	190	12,456
Northeast ⁵	1,800	4,680	278	104	0	0	86	14,112
North Industrial	0	0	0	7	1,040	389	0	15,216
Northwest	5,500	14,300	4	56	0	0	0	1,256
Southeast	2,573	6,690	66	33	0	0	0	2,904
Subtotal: New	14,897	38,732	462	312	1,247	423	276	48,131
Total: Existing+New	27,537	69,700	Not applicable					62,631
Employees/Acre Labor Force (1.3 per DU)	35,798		34	20	13	4	30	

¹ Existing Population = Existing Dwelling Units X 2.45 Residents per DU. New Population = New Dwelling Units X 2.6 Residents per DU.

² Employment = Sum for nonresidential uses (acreage X Employees/Acre)

³ Excludes about 1,200 existing dwelling units within the Northwest and Southeast Plan areas, and existing nonresidential acreage and employment in Southeast and North Industrial area.

⁴ Residential growth to 2005 equals 65 to 70 percent of potential growth to buildout; nonresidential growth to 2005 represents about 35 to 40 percent of potential growth to buildout.

⁵ Regional commercial in Northeast is an auto mall.

SOURCES: City of Roseville and McDonald & Associates, May 1986 and February 1988, Roseville Northeast, Southeast, Northcentral, and Northwest Specific Plan maps, 1986-1987; Fehr and Peers Associates, Inc.

TABLE 3.7-7
CITY OF ROSEVILLE LAND USE FORECASTS, YEAR 2005
WITH BUILDOUT OF FOUR SPECIFIC PLAN AREAS

	Dwell. Units	Pop. ¹	Bus.- Prof. (acres)	Comm. (acres)	Light Indus. (acres)	Gen. Indus. (acres)	Reg. Comm. (acres)	Employ. ²
Existing Development ³	12,640	30,968	Existing nonresidential acres not available					14,500
New Development								
Citywide Infill ⁴	1,800	4,680	5	27	40	34	0	1,366
Foothills Infill ⁴	500	1,300	4	5	45	0	0	821
North Central	4,408	11,461	180	106	189	0	208	16,937
Northeast ⁵	1,800	4,680	286	242	0	0	86	17,144
North Industrial	0	0	0		1,040	389	0	15,216
Northwest	8,194	21,304	89	132	0	0	0	5,666
Southeast	3,970	10,322	102	40	0	0	0	4,268
Subtotal: New	20,672	53,747	672	598	1,330	423	267	61,418
Total: Existing+New Two Regional Centers in North Central	33,312	84,715	Not applicable					75,918
Employees/Acre Labor Force (1.3 per DU)	43,306		34	20	13	4	30	

¹ Existing Population = Existing Dwelling Units X 2.45 Residents per DU. New Population = New Dwelling Units X 2.6 Residents per DU.

² Employment = Sum for nonresidential uses (acreage X Employees/Acre)

³ Excludes about 1,200 existing dwelling units within the Northwest and Southeast Plan areas, and existing nonresidential acreage and employment in Southeast and North Industrial area.

⁴ Residential growth to 2005 equals 65 to 70 percent of potential growth to buildout; nonresidential growth to 2005 represents about 35 to 40 percent of potential growth to buildout.

⁵ Regional commercial in Northeast is an auto mall.

SOURCES: City of Roseville and McDonald & Associates, May 1986 and February 1988, Roseville Northeast, Southeast, Northcentral, and Northwest Specific Plan maps, 1986-1987; Fehr and Peers Associates, Inc.

TABLE 3.7-8

TRIP GENERATION RATES FOR BUSINESS USES
UNDER EXPECTED DEVELOPMENT DENSITIES

Land Use	Employee/ Acre	Trips/Employee			ADT	Trips/Acre			
		ADT	AM	PM		In	AM		PM
							Out	In	
Business Professional/ R & D	34	3.8	.54	.54	129	16.4	2.0	2.8	15.6
General Industrial	4	3.0	.49	.57	12	1.8	0.2	0.3	2.0
Light Industrial	13	3.2	.67	.65	42	7.8	0.9	1.5	7.0

SOURCE: Fehr and Peers Associates, Inc.

SOURCE: Fehr and Peers Associates, Inc.

TABLE 3.7-9
TRIP GENERATION RATES BY LAND USE TYPE

Land Use Category	Description/ Size		ADT	AM Peak		PM Peak	
				In	Out	In	Out
<u>Trips per DU</u>							
Residential	RD-1	thru RD-5	10	.21	.55	.63	.37
	RD-6	thru RD-10	8.5	.14	.50	.55	.30
	RD-11	thru RD-15	7.0	.12	.40	.47	.23
	RD-16	thru RD-20	6.0	.10	.35	.40	.20
<u>Trips per Acre</u>							
Retail	<10	acres	738	11.2	10.4	34.0	36.2
	10-20	acres	600	8.1	7.2	25.7	27.4
	20-30	acres	455	3.6	1.8	21.0	22.0
	30-40	acres	377	14.4	6.3	24.5	25.0
	40-50	acres	497	3.3	1.7	24.0	25.0
	50-100	acres	409	4.0	2.6	17.0	17.1
	100+	acres	409	4.3	1.7	15.0	15.0
Schools, Parks	School K-6		35	3.5	1.8	0.4	0.7
	High School		49	6.7	2.4	2.4	6.6
	Parks		6	0.2	0.2	0.3	0.3

SOURCE: Fehr and Peers Associates, Inc.

the window area model to predict precise travel patterns for each development zone within the Roseville/Rocklin area, and indicate peak traffic turning movements at individual street intersections.

- **Trip Generation:** This analysis involves applying empirical trip generation rates to the land uses planned in each sub-area or "traffic zone" within the study area. The land uses for the proposed project and the major Roseville Specific Plan areas and other cumulative development areas in Roseville are given in Tables 3.7-6 and 3.7-7. Trip rates used in the traffic analysis were derived from standards published by the Institute of Transportation Engineers (ITE) and are presented in Tables 3.7-8 and 3.7-9. They were validated for Roseville through calibration of the traffic model and suggest that, without any special TSM efforts, the combined effects of employee absenteeism, normal transit, and ridesharing and commuting at non-peak time results in a trip generation rate of about 0.54 to 0.65 peak-hour vehicle trips per employee (depending on type of office/industrial use).
- **Trip Distribution/Assignment:** The traffic generated in each traffic zone is distributed to its likely destinations and assigned to reasonable travel routes based on proven transportation modelling principles. The distribution process is based on a "gravity model" principle, which states that the likelihood of travelling to a given destination for a given purpose is directly proportional to the attractiveness of that destination or the amount of activity there, and inversely proportional to the time it takes to get there. The traffic assignment principal states that individuals attempt to find the route which offers the shortest travel time between their points of origin and destination. The shortest path is affected by the levels of congestion on all alternative routes, and the selection of a given route is sensitive to its "capacity constraints" and the competition for use by other travellers. The traffic forecasts result in peak hour traffic volume forecasts on each street segment in the roadway network and the turning movements predicted to occur at each individual intersection.
- **Capacity and Level of Service Analysis:** The analysis of year 2005 peak hour operating conditions on Roseville's streets and highways is based on analysis techniques prescribed by the Transportation Research Board in the 1985 Highway Capacity Manual. The analysis of street intersection operation is based on its configuration, signalization, and predicted PM peak hour traffic volumes. Conservative measures were employed in this study in order to provide the City of Roseville with the measure of safety it desires in planning facilities to match or exceed the needs of future development. This study defines street widening and intersection improvements or urban interchanges in all cases where future volume/capacity ratios are projected to be 0.80 or greater. In addition to intersection conditions, this study evaluates the operation of individual street and freeway segments, in order to identify ultimate size requirements and right-of-way needs. Table 3.7-10 gives the capacities of street and freeway segments. Streets within the City of Roseville were designed to operate at 80 percent of capacity or less. The future geometry of each intersection was defined according to the following guidelines.

TABLE 3.7-10
ASSUMED LANE GEOMETRY FOR NEW INTERSECTIONS
(STANDARD INTERSECTION CONFIGURATIONS)

Facility Type	Intersection Type	Approach Lanes		
		Left	Through	Right
6-lane arterial	full	2	3	1
4-lane arterial	full	1	2	1
2-lane arterial	full	1	1	1
6-lane arterial	T	2	0	1
4-lane arterial	T	2	0	1
2-lane arterial	T	1	0	1

SOURCE: Fehr and Peers Associates, Inc.

For existing intersections (such as Sunrise Boulevard/Douglas Boulevard), the existing lane geometry and signalization was assumed, plus any reasonable improvements that could be accomplished with minimal expansion of right-of-way and without grade separation.

For intersections in currently undeveloped areas which can be designed to the highest standards (such as Harding Boulevard/Roseville Parkway), the highest capacity geometries dictated by the overall street and right-of-way width were assumed. The basic geometric assumptions are indicated in Table 3.7-10. Along with these basic geometries, multiphase signal operation was assumed. In cases where projected turning volumes were significantly unbalanced, the lane designations were adjusted from the standard assumptions given in Table 3.7-10 to a configuration that would be most effective within the available right-of-way.

At locations where at-grade improvements with TSM would not be sufficient and where reasonable right-of-way acquisition could be accomplished, construction of a grade separated interchange was called for. The standard assumption for such an improvement would be an "urban interchange" of the type recently installed at various locations in Texas, Florida, and Arizona. Such interchanges require minimal right-of-way. They allow uninhibited major through traffic movement and control all of the other movements at a single signalized intersection. They generally allow capacities which are 20 percent to 75 percent higher than those of an at-grade intersection and up to 10 percent higher than a standard diamond interchange.

Scenarios

The Transportation Impact Study for North Central Roseville Specific Plan EIR examined three scenarios. Because accurate traffic projections are not possible beyond a certain horizon, all three assumed development levels for the year 2005 and a background level of growth outside of the specific Plan areas, resulting in a travel demand for 15,000+/- employees to and from the North Industrial area.

The first scenario in the Transportation Study, Scenario A, was based on the assumption that none of the Specific Plan areas would be developed. As this scenario effectively constitutes the implementation of the "No Project" Alternative called for by CEQA, it is discussed in that section of this EIR rather than below.

The remaining two scenarios presented in the Transportation Study are used here. They are:

- ✧ Scenario 1 (B in Transportation Study): Year 2005 with partial buildout in Specific Plan areas and complete development of the NCRSP.

Under this scenario, it is assumed that, as with the No Project Alternative, growth will occur within the City and the North Industrial area. In addition, approximately two-thirds of proposed development in the Specific Plan areas and complete buildout of the North Central area are assumed.

- ✧ Scenario 2 (C in Transportation Study): Year 2005 with complete development in all four Specific Plan areas

In addition to the growth anticipated within the City and North Industrial area, this scenario is predicated on the assumption that the four Specific Plan areas are built out completely by 2005. This scenario addressed the cumulative conditions.

✧ **Generation of increased traffic volumes under Scenario 1**

When the traffic demand generated by partial development in three Specific Plan areas and complete buildout of the North Central Plan area (Scenario 1) is added to baseline growth in the City and North Industrial area, the following impacts occur.

According to trip generation analysis shown in Table 3.7-11, 201,107 daily trips, including 20,678 during PM peak hours, would result from development of the Plan area.

The following impacts are *potentially significant*.

Freeways/Highways

Interstate 80 and the Highway 65 Bypass carry a substantial portion of traffic travelling from points north of Roseville (such as Rocklin, Lincoln, and Auburn) and points south (primarily Sacramento). Since the areas surrounding Roseville are expected to grow steadily, traffic volumes on I-80 and the 65 Bypass will increase regardless of whether development takes place in any of the Specific Plan areas. Improvements required with and without growth in the Plan areas are shown on Table 3.7-12.

Roads

The existing and already planned roads will accommodate any additional roadway traffic generated by development of the Plan areas. However, intersections will be affected by increased traffic.

Intersections

Six intersections would operate at V/C ratios of 0.80 or greater under this scenario: Douglas Boulevard/Sunrise Avenue, Roseville Parkway/Taylor, Roseville Parkway/Harding Boulevard, Cirby Way/Riverside, Douglas Boulevard/Rocky Ridge,

TABLE 3.7-11
TRIP GENERATION CHARACTERISTICS

Land Use	Size	Trip Rate		ADT	Trip Generation		
		ADT	PM Peak		PM Peak	% ADT	% Peak
R1-R5	1,340 du	10/du ¹	1.00/du	13,400	1,340	.07	.06
R6-R10	546 du	8.5/du	.86/du	4,641	470	.02	.02
R11-R15	90 du	7/du	.70/du	630	63	.00	.00
R16-R20	2,432 du	6/du	.60/du	14,592	1,459	.07	.07
Comm (<10 ac) ²	2 ac	738/ac	70.30/ac	1,476	141	.01	.01
Comm (10-20 ac)	38 ac	600/ac	53.10/ac	22,800	2,018	.11	.10
Comm (20-30 ac)	25 ac	455/ac	43.10/ac	11,375	1,078	.06	.05
Comm (30-40 ac)	42 ac	377/ac	49.50/ac	15,834	2,079	.08	.10
Regional Commercial	208 ac	409/ac	34.10/ac	85,072	7,093	.42	.34
Business/Professional	181 ac	129/ac	18.40/ac	23,349	3,330	.12	.16
Light Industrial	189 ac	42/ac	8.50/ac	<u>7,938</u>	<u>1,607</u>	.04	.08
				201,107	20,678		

¹ du = dwelling unit

² ac = acre

TABLE 3.7-12
REQUIRED FREEWAY MITIGATIONS

**2005 With No Development of the
Specific Plan Areas (No Project Alternative)**

Highway 65 Bypass

- 2 lanes between Blue Oaks Boulevard and Harding Avenue
- 3 lanes between Harding Avenue and Interstate 80
- 3-lane ramp at the 65 Bypass and southbound 65 Bypass
- 3-lane ramp at northbound Interstate 80 and the 65 Bypass

Interstate 80

- 3 lanes between the 65 Bypass and Taylor Road
- 4 lanes between Taylor Road and Atlantic Street
- 3 lanes between Atlantic Street and Douglas Boulevard

**2005 With Complete Development of the North Central Area and
Partial or Complete Buildout in the Other Three Plan Areas (Scenarios 1 and 2)**

Highway 65 Bypass

- 2 lanes between Blue Oaks Boulevard and Pleasant Grove Boulevard
- 3 lanes between Pleasant Grove Boulevard and Interstate 80
- 3-lane ramp at the 65 Bypass and Interstate 80 southbound
- 3-lane loop ramp at Interstate 80 northbound and the 65 Bypass

Interstate 80

- 3 lanes between the 65 Bypass and Taylor Road
 - 4 lanes between Taylor Road and Douglas Boulevard
 - 5 lanes south of Douglas Boulevard or alternative high-capacity facility
-

and Eureka Road/Taylor Road. As shown on Table 3.7-13, only Douglas Boulevard/Rocky Ridge Road would operate at an acceptable LOS with at-grade improvements alone.

Mitigation Measures

Implementation of Mitigation Measures 3.7-1 through 3.7-11 and 3.7-13 will reduce impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.7-1 *Participate in traffic mitigation fee ordinance adopted by the City of Roseville*

Projects within the NCRSP will be subject to the traffic mitigation fee ordinance adopted by the City. This fee ordinance has been established to finance construction of principal roadway facilities required to serve citywide and regional buildout, including the five urban interchanges identified by the citywide traffic model. Plan area proponents will construct two-lane and four-lane collectors, and four lanes of all six-lane arterials.

3.7-2 *Construct arterial and collector roadways within the NCRSP.*

Arterial and collector roadways within the NCRSP area have been planned and will be constructed to provide LOS C operating conditions consistent with City policy. Potential impacts associated with the Christmas season trip columns were evaluated and no measures beyond those improvements identified in the traffic model would be warranted. The NCRSP provides adequate rights-of-way to accommodate future roadway facilities, including potential urban interchanges within the Plan area. (Specific Plan Policy 5.2-1)

3.7-3 *Comply with the Roseville Rideshare Ordinance.*

Projects within the NCRSP will be subject to compliance with the Roseville Rideshare Ordinance, as well as any future amendments (Specific Plan Policy 5.8.4.2).

3.7-4 *Develop a bicycle/pedestrian pathway system within the NCRSP.*

The NCRSP includes development of bikeway and pedestrian pathway system. (Specific Plan Policy 5.8.2)

3.7-5 *Develop a park-and-ride lot system.*

The NCRSP includes development of park-and-ride facilities (Specific Plan Policy 5.8.3.5).

Table 3.7-13

Intersections with V/C Ratios of 0.80 or Greater and Improvements, Scenario 1

INTERSECTION	LEVEL OF SERVICE VOLUME/CAPACITY RATIO	A B C D E F					
		← 0.6 — 0.7 — 0.8 — 0.9 — 1.0 →					
INTERSECTION	LEVEL OF MITIGATION						
DOUGLAS BOULEVARD & SUNRISE BOULEVARD	STANDARD INTERSECTION	1.20					
	URBAN INTERCHANGE	0.60					
RIVERSIDE AVENUE & CIRBY WAY	STANDARD INTERSECTION	0.88					
	URBAN INTERCHANGE	0.70					
ROSEVILLE PARKWAY & TAYLOR ROAD	STANDARD INTERSECTION	1.18					
	URBAN INTERCHANGE	0.72					
ROSEVILLE PARKWAY & HARDING BOULEVARD	STANDARD INTERSECTION	0.97					
	URBAN INTERCHANGE	0.73					
EUREKA ROAD & TAYLOR ROAD	STANDARD INTERSECTION	0.88					
	1ST LEVEL TSM ¹	0.79					
DOUGLAS BOULEVARD & ROCKY RIDGE ROAD	STANDARD INTERSECTION	0.91					
	OTHER IMPROVEMENTS ²	0.68					

STANDARD INTERSECTION refers to improvements as prescribed by the basic geometry discussed under methodology as well as assumed widening of Douglas, Sunrise (south of Cirby), Cirby, and Riverside to six lanes by year 2005. Major intersection approaches would have the maximum number of lanes feasible. The only exception to this would be at the Douglas & Sunrise intersection, where physical and right-of-way constraints prevent the widening of the intersection.

1. 1ST LEVEL TSM assumes enforcement of the Rideshare Ordinance in the business-professional and light industrial uses of the NWRSP, NCRSP, the North Industrial area, and City Infill.
2. Rocky Ridge approaches widened to 6 lanes (2 left-turn, 3 thru, 1 right-turn)

Note: This analysis was completed before the Cirby Way designs by Roseville Public Works Department. No modelling information is available yet on the effects of Cirby Way being only 5 lanes wide between Riverside Avenue and Sunrise Boulevard.

3.7-6 *Develop infrastructure to facilitate expansion of bus service.*

Infrastructure to facilitate expansion of bus service is included in the NCRSP. Bus turnouts and shelters will be located consistent with City Improvement Standards and as approved by the Public Works Director at the time of roadway installation (Specific Plan Policy 5.8.3.4).

3.7-7 *Monitor traffic conditions.*

Traffic monitoring will be used to detect changes in traffic patterns that are approaching Level of Service C for intersections throughout the City (as defined in the 1985 edition of the Highway Traffic Manual). The Roseville Public Works Department will monitor key locations through a combination of site traffic counts and techniques of modeling the effects of cumulative growth attributable to approved development projects. The Public Works Department will maintain a list of traffic projects to be funded in a five-year capital improvements program. The program will be updated on an annual basis and new projects added to the five-year program as LOS C is approached in specific locations. The monitoring program will be conducted on a citywide basis and funding of the specific improvements will come from a combination of citywide traffic mitigation and development fees, conditions in various development agreements, assessment districts, and other sources (Specific Plan Policy 5.8.4.1).

Mitigation Measures Recommended by EIR

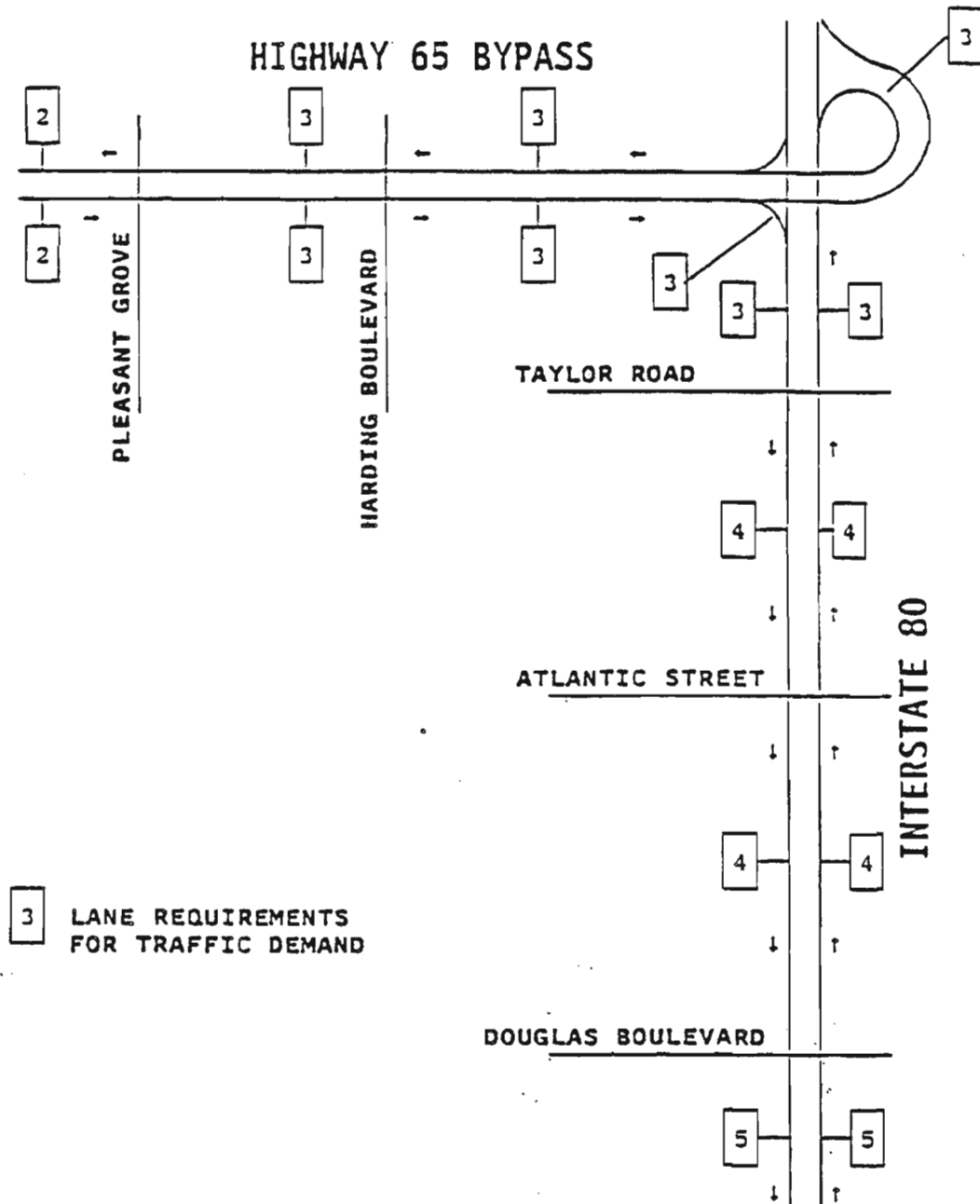
3.7-8 *Promote extension of Light Rail. (Mitigation Implementation Responsibility: City of Roseville)*

If examination of possible extension of the light rail system to Roseville indicates that such an extension would be feasible and effective in regional trip reduction, the City should aggressively pursue right-of-way acquisition and funding for construction and vehicles. The Plan could be modified to consider potential routes and right-of-way requirements.

Freeways/Highways

3.7-9 *Widen Highway 65 Bypass between Pleasant Grove Boulevard and Interstate 80. (Mitigation Implementation Responsibility: Caltrans)*

Figure 3.7-5 shows the number of lanes required on the 65 Bypass and I-80 in 2005 with buildout of the North Central Specific Plan area. On the 65 Bypass, two lanes per direction would be required on the segment between Blue Oaks Boulevard and Pleasant Grove Boulevard, increasing to three lanes per direction from Pleasant Grove Boulevard to I-80. Based on the demand volumes, a three-lane ramp



2005 WITH BUILDOUT OF THE NORTH CENTRAL SPECIFIC PLAN AREA

connecting the I-80 northbound to the 65 Bypass would be needed. It should be noted that the lane requirements shown are based strictly on demand volumes. Widening a ramp to three lanes may be infeasible or undesirable.

3.7-10 *Widen Interstate 80 between Highway 65 Bypass and south of Douglas Boulevard. (Mitigation Implementation Responsibility: Caltrans)*

Interstate 80 would require three lanes per direction from the 65 Bypass to the Taylor Road interchange, four lanes per direction from Taylor Road to Douglas Boulevard, and five lanes per direction south of Douglas Boulevard. Since it is Caltrans' policy not to widen beyond four lanes per direction, additional north-south roadway capacity is required across the Placer/Sacramento boundary. A high-capacity parallel facility, such as L.R. 102 would provide relief to I-80. Caltrans is examining Route 102; however, there is no indication if or when such a facility would be constructed.

3.7-11 *Construct new interchanges on the Highway 65 Bypass. (Mitigation Implementation Responsibility: Caltrans)*

The ultimate alignment of arterial roadways to serve the South Placer region is not yet finalized; however, it is generally agreed that two full interchanges will be required on the Highway 65 Bypass. The eastern interchange would connect north to an extension of Stanford Ranch Road in Rocklin, and south to Harding Boulevard in Roseville. The western interchange would connect north to an extension of Park Drive from Rocklin/Placer County, and south to Pleasant Grove Boulevard in Roseville. The municipalities of Placer County, Rocklin, and Roseville have initiated a Joint Powers Agreement (JPA) to facilitate construction of these interchanges. Also included in the JPA is completion of the partially constructed interchange serving Highway 65, Blue Oaks, and the 65 Bypass, and construction of a full interchange at Highway 65/Sunset Boulevard.

Roads

3.7-12 *No mitigations necessary, if roadways are constructed as currently planned.*

Intersections

3.7-13 *Construct at-grade and grade-separated improvements and implement TSM. (Mitigation Implementation Responsibility: City of Roseville)*

The following improvements would reduce the impact of growth in the North Central area to less-than-significant levels by reducing the LOS for each intersection to less than 0.80 (see Table 3.7-12).

At-Grade Improvements

Widening the two Rocky Ridge Road approaches at its intersection with Douglas Boulevard to six lanes (two left, three through, one right) would improve peak hour operation from LOS D ($V/C = 0.97$) to LOS C ($V/C = 0.75$).

TSM for City Infill, North Industrial, North Central and Northwest Plan areas

By implementing carpooling and other features of Article 37, Eureka Road and Taylor Road would be brought to an acceptable LOS--LOS C, with a V/C ratio = 0.79.

Grade Separation Improvements

The four remaining intersections, Douglas Boulevard/Sunrise Boulevard, Riverside Parkway/Cirby Way, Roseville Parkway/Taylor Road, and Roseville Parkway/Harding Boulevard, would require improvements such as urban interchanges to bring their respective V/C ratios to LOS C or better. These are shown in Figure 3.7-6. The V/C ratios before and after grade separation are shown in Table 3.7-13. It should be noted that grade separation improvements would be required for Douglas Boulevard/Sunrise Boulevard and Cirby Way/Riverside Avenue even if no development took place in the four Plan areas. Also, it has not been determined whether adequate right-of-ways exist for this project.

A summary of impacts and mitigations by intersection can be found in Table 3.7-14.

※ **Incremental contribution to cumulative increase in traffic volumes described under Scenario 2**

The additional traffic volume created by the growth assumed under Scenario 2 would impact intersections, primarily.

The following impacts are *potentially significant*.

Freeways/Highways

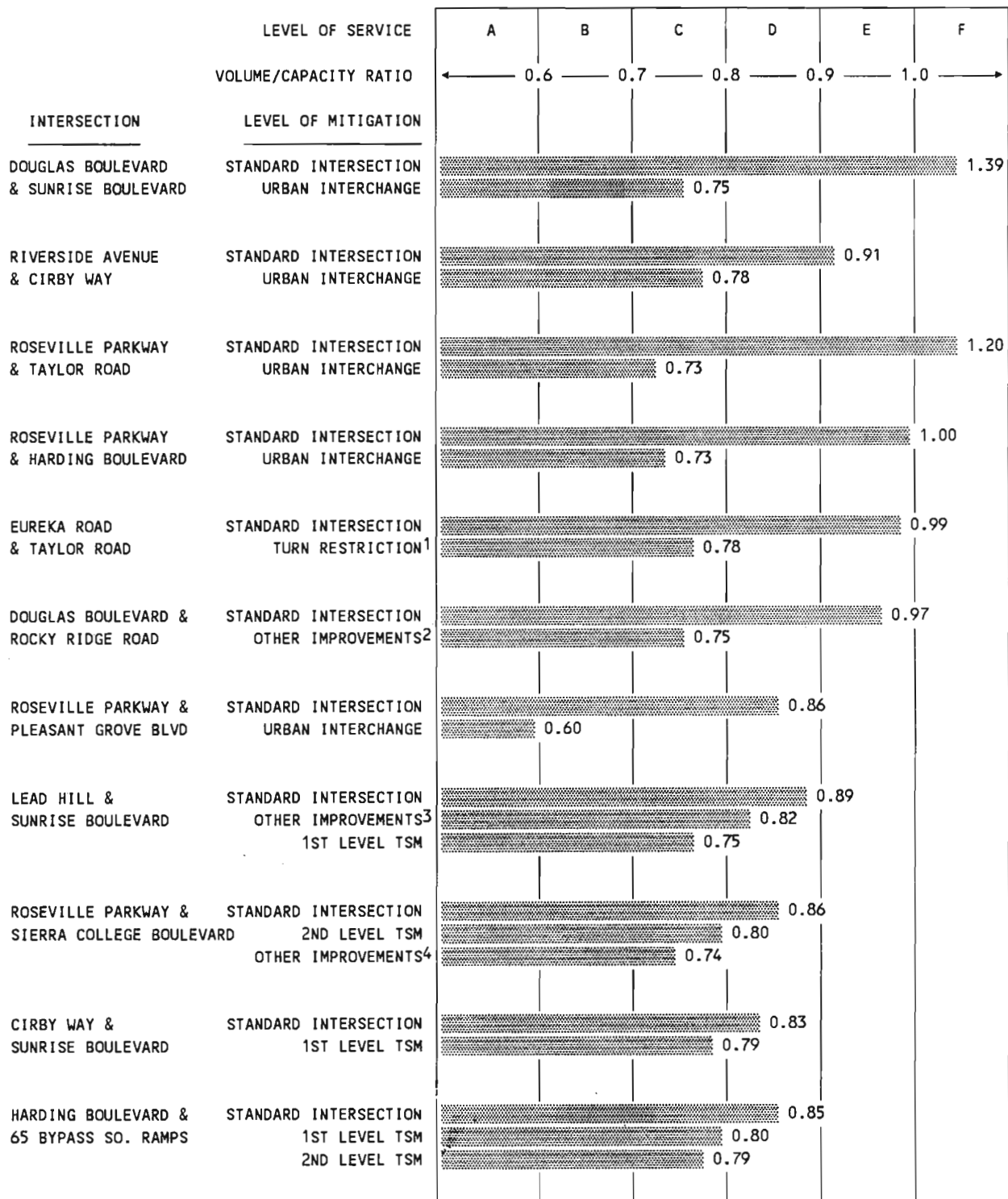
As in Scenario 1, traffic from the surrounding area would necessitate changes to the 65 Bypass and Interstate 80. The impact of fully developing the four Plan areas is the same as that attributable to the partial development described in the first scenario (see Table 3.7-12).

Roads

Traffic generated by full development of the Plan areas would be carried on existing and planned roadways.

Table 3.7-14

Intersections with V/C Ratios of 0.80 or Greater and Improvements, Scenario 2



1. Prohibition of southbound left-turn movement during peak hour

2. Rocky Ridge approaches 6 lanes (2 left, 3 thru, 1 right)

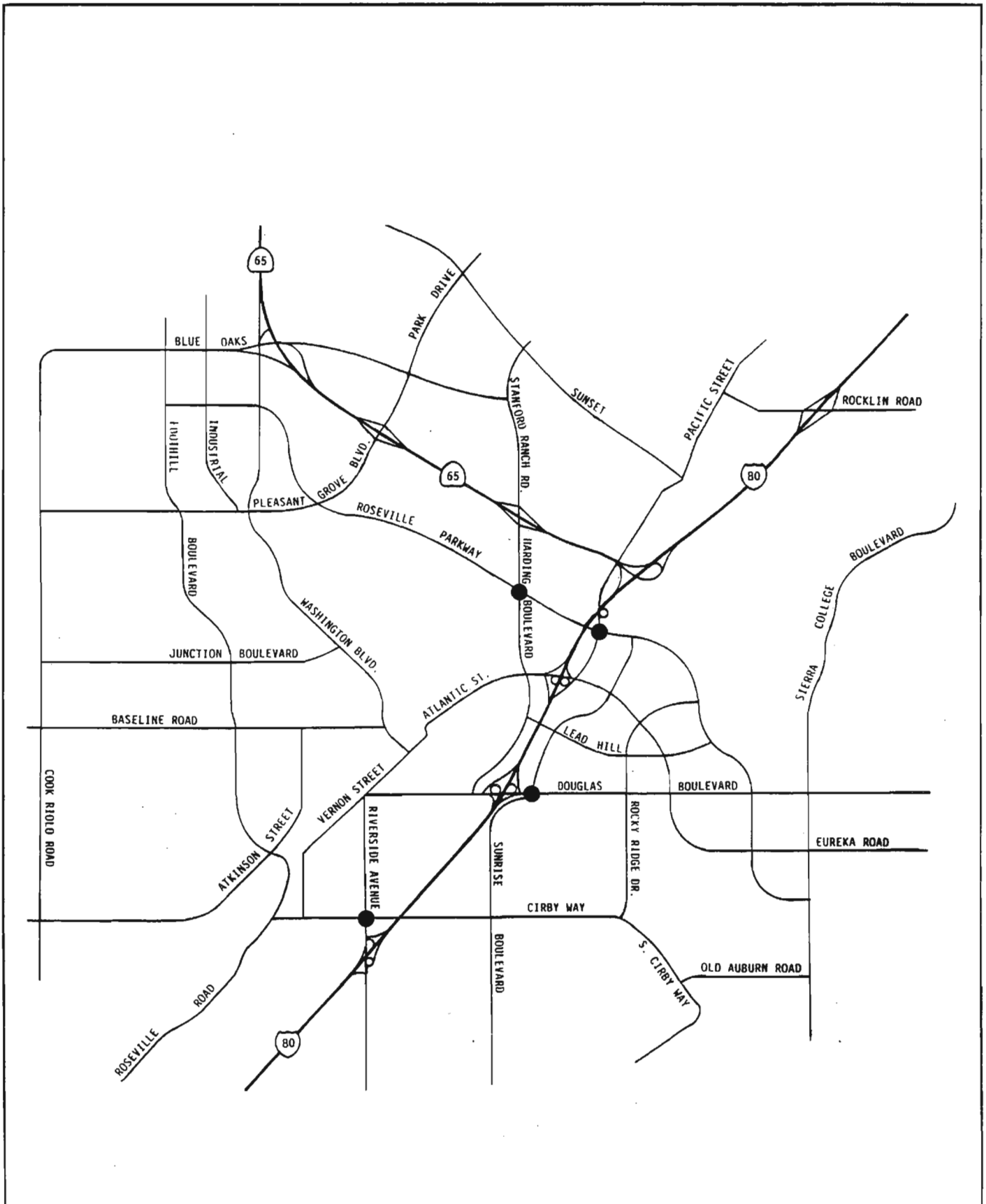
3. Dual left turn lanes on east and west approaches

4. 3rd northbound left-turn lane

Note: This analysis was completed before the Cirby Way designs by Roseville Public Works Department. No modelling information is available yet on the effects of Cirby Way being only 5 lanes wide between Riverside Avenue and Sunrise Boulevard.

Intersections Requiring Urban Interchanges, Scenario 1

Figure 3.7-6



Intersections

As shown in Table 3.7-14 with buildout of all four Roseville specific Plan areas and expected 2005 development levels elsewhere, a total of 11 intersections would be expected to operate at Level of Service D, E, or F during the PM peak hour. Of these, three would operate at LOS F, three at LOS E and five at LOS D.

Mitigation Measures

Implementation of Mitigation Measures 3.7-14 through 3.7-24 and 3.7-26 will reduce impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.7-14 *Participate in traffic mitigation fee ordinance adopted by the City of Roseville*

Projects within the NCRSP will be subject to the traffic mitigation fee ordinance adopted by the City. This fee ordinance has been established to finance construction of principal roadway facilities required to serve citywide and regional buildout, including the five urban interchanges identified by the citywide traffic model. Plan area proponents will construct two-lane and four-lane collectors, and four lanes of all six-lane arterials.

3.7-15 *Construct arterial and collector roadways within the NCRSP.*

Arterial and collector roadways within the NCRSP area have been planned and will be constructed to provide LOS C operating conditions consistent with City policy. Potential impacts associated with the Christmas season trip columns were evaluated and no measures beyond those improvements identified in the traffic model would be warranted. The NCRSP provides adequate rights-of-way to accommodate future roadway facilities, including potential urban interchanges within the Plan area (Specific Plan Policy 5.2.1). Cost will be borne in accordance with the traffic fee ordinance.

3.7-16 *Comply with the Roseville Rideshare Ordinance.*

Projects within the NCRSP will be subject to compliance with the Roseville Rideshare Ordinance, as well as any future amendments (Specific Plan Policy 5.8.4.2).

3.7-17 *Develop a bicycle/pedestrian pathway system within the NCRSP.*

The NCRSP includes development of bikeway and pedestrian pathway system. (Specific Plan Policy 5.8.2)

3.7-18 *Develop a park-and-ride lot system.*

The NCRSP includes development of park-and-ride facilities (Specific Plan Policy 5.8.3.5).

3.7-19 *Develop infrastructure to facilitate expansion of bus service.*

Infrastructure to facilitate expansion of bus service is included in the NCRSP. Bus turnouts and shelters will be located consistent with City Improvement Standards and as approved by the Public Works Director at the time of roadway installation (Specific Plan Policy 5.8.3.4).

3.7-20 *Monitor traffic conditions.*

Traffic monitoring will be used to detect changes in traffic patterns that are approaching Level of Service C for intersections throughout the City (as defined in the 1985 edition of the Highway Traffic Manual). The Roseville Public Works Department will monitor key locations through a combination of site traffic counts and techniques of modeling the effects of cumulative growth attributable to approved development projects. The Public Works Department will maintain a list of traffic projects to be funded in a five-year capital improvements program. The program will be updated on an annual basis and new projects added to the five-year program as LOS C is approached in specific locations. The monitoring program will be conducted on a citywide basis and funding of the specific improvements will come from a combination of citywide traffic mitigation and development fees, conditions in various development agreements, assessment districts, and other sources (Specific Plan Policy 5.8.4.1).

Mitigation Measures Recommended by EIR

3.7-21 *Promote extension of Light Rail.*

If examination of possible extension of the light rail system to Roseville indicates that such an extension would be feasible and effective in regional trip reduction, the City should aggressively pursue right-of-way acquisition and funding for construction and vehicles. The Plan could be modified to look at potential routes and right-of-way requirements.

Freeways

3.7-22 Widen Interstate 80 between Highway 65 Bypass and south of Douglas Boulevard.

The lane requirements are the same as under Scenario 1, which considered complete development taking place in the North Central area alone. Interstate 80 would need to be three lanes per direction from the 65 Bypass to Taylor Road, four lanes per direction south of Douglas Boulevard, and five lanes per direction south of Douglas Boulevard. A high-capacity facility, such as LR 102, would provide relief and negate the need to widen to five lanes. These are shown in Figure 3.7-7.

3.7-23 Widen 65 Bypass between Pleasant Grove Boulevard and Interstate 80

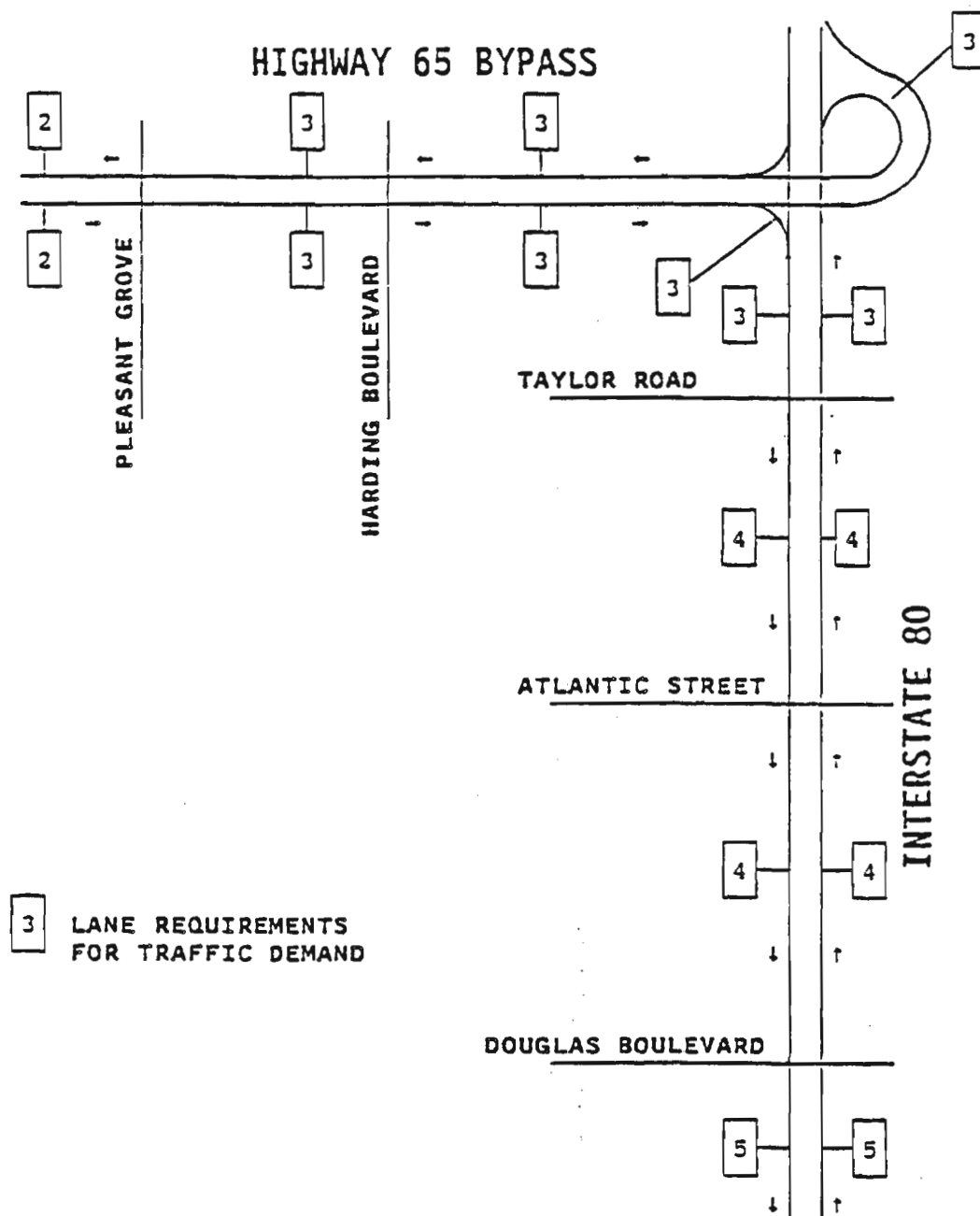
The 65 Bypass would need two lanes per direction from Blue Oaks to Pleasant Grove Boulevard, and three lanes per direction from Pleasant Grove to Interstate 80.

3.7-24 Construct new interchanges on the Highway 65 Bypass.

The ultimate alignment of arterial roadways to serve the South Placer region is not yet finalized; however, it is generally agreed that two full interchanges will be required on the Highway 65 Bypass. The eastern interchange would connect north to an extension of Stanford Ranch Road in Rocklin, and south to Harding Boulevard in Roseville. The western interchange would connect north to an extension of Park Drive from Rocklin/Placer County, and south to Pleasant Grove Boulevard in Roseville. The municipalities of Placer County, Rocklin, and Roseville have initiated a Joint Powers Agreement (JPA) to facilitate construction of these interchanges. Also included in the JPA is completion of the partially constructed interchange serving Highway 65 and the 65 Bypass, and construction of a full interchange at Highway 65/Sunset Boulevard.

Roads

3.7-25 No mitigations necessary if roads expanded as planned.



2005 WITH DEVELOPMENT OF ALL FOUR SPECIFIC PLAN AREAS

Intersections

3.7-26 Improve roadways (at-grade improvements, grade-separated improvements, and peak hour turning prohibitions) and implement TSM.

At-Grade Improvements: By widening the two Rocky Ridge Road approaches at Douglas Boulevard to six lanes, peak hour operation would be improved from LOS D ($V/C = 0.97$) to LOS C ($V/C = 0.75$). These will be funded by the traffic mitigation fee.

Peak Hour Left Turn Prohibition: The intersection at Eureka Road and Taylor Road would operate at LOS C ($V/C = 0.78$) if southbound left-turn movement was prohibited during the PM peak operating period.

TSM for City Infill, North Industrial, North Central and Northwest Plan areas: By using TSM measures, the V/C ratio for the Cirby Way and Sunrise Boulevard intersection would be 0.79 rather than 0.83.

TSM Applied to City Infill, the North Industrial Area and The Four Specific Plan Areas: This level of TSM would improve the V/C ratio at the Harding Boulevard and 65 Bypass south ramps from 0.85 to 0.79.

TSM and At-Grade Improvements: Combining the lower level TSM with dual left-turn lanes at the east and west approaches at the Lead Hill and Sunrise Boulevard intersection would improve PM peak hour operations from $V/C = 0.89$ to $V/C = 0.82$. Using TSM measures for all Plan areas would further reduce the V/C ratio to 0.75, or LOS C.

TSM and At-Grade Improvements or Grade Separation: The Roseville Parkway and Sierra College Boulevard intersection would operate with a V/C ratio of 0.80 with TSM alone. By adding a third northbound left-turn lane or a grade-separated interchange, PM peak hours operations could be brought to LOS C or better ($V/C = 0.74$ or 0.61 , respectively).

Grade Separation Improvements: Five intersections would require grade separation improvements, such as urban interchanges, in order to attain an LOS C or better. The location of these intersections is shown in Figure 3.7-8. These intersections are Douglas Boulevard/Sunrise Boulevard, Roseville Parkway/Taylor Road, Roseville Parkway/Harding Boulevard, Cirby Way/Riverside Avenue, and Roseville Parkway/Pleasant Grove Boulevard. Table 3.7-14 shows the results of implementing grade separation improvements to these intersections. Even without the development of the four plans, Douglas Boulevard/Sunrise Boulevard and Cirby

Way/Riverside Avenue would require grade separation improvements to maintain an LOS C. These will be funded by the traffic mitigation fee.

A summary of impacts and mitigations by intersection is presented in Table 3.7-15.

Intersections Requiring Urban Interchanges, Scenario 2

Figure 3.7-8

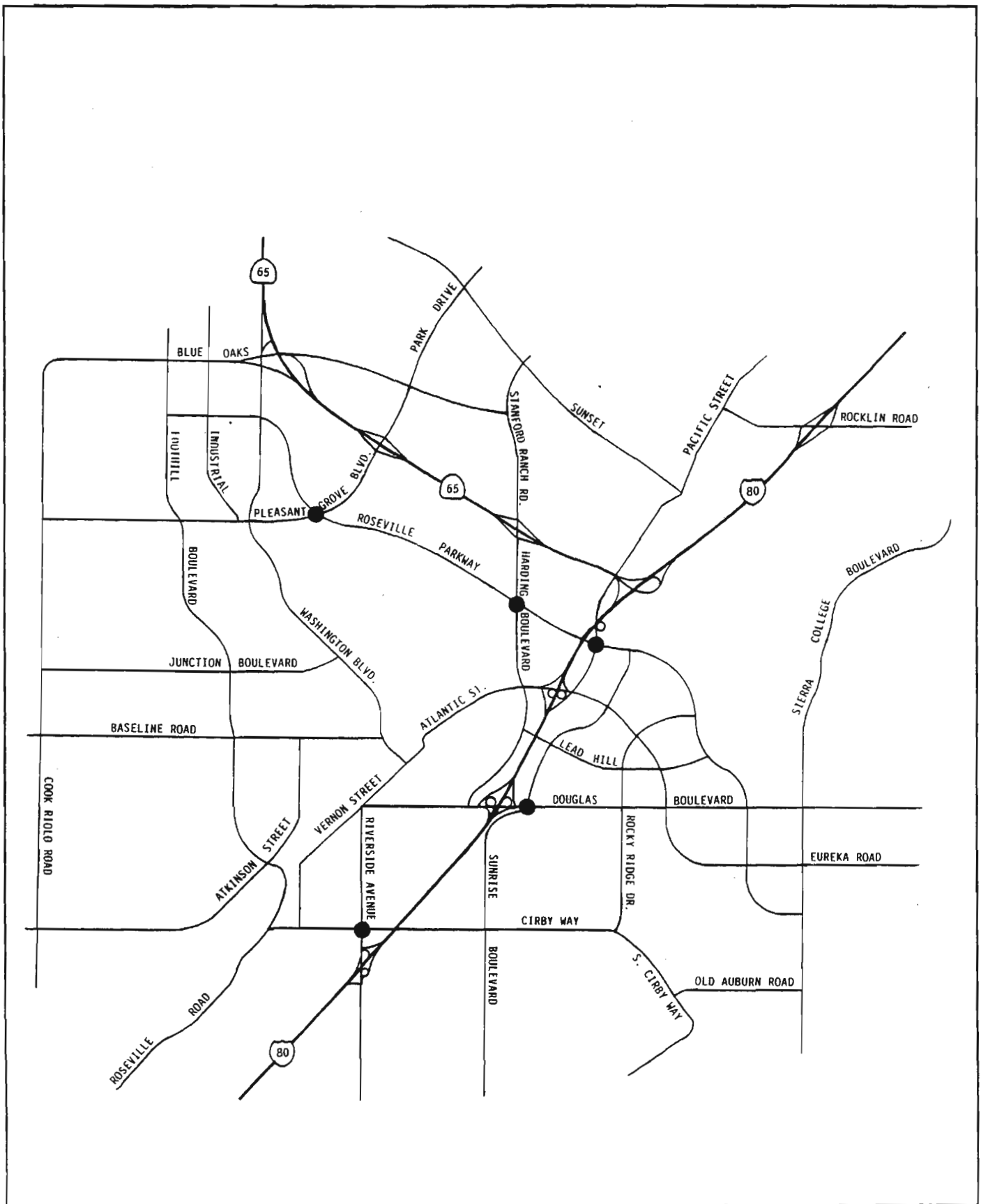


TABLE 3.7-15

SUMMARY OF IMPACTS AND MITIGATIONS

	No Project Alternative 2005 w/o Development of Four Specific Plans				Scenario 1 2005 w/Buildout of North Central Plans				Scenario 2 2005 w/Buildout of Four Specific Plans			
	Mitigation Level				Mitigation Level				Mitigation Level			
	1	2	3	Impact Over 0.80	1	2	3	Impact Over 0.80	1	2	3	Impact Over 0.80
Douglas & Sunrise Cirby & Sunrise			X	X			X	X			X	X
Roseville Pkwy & Taylor							X	X		XA		X
Roseville Pkwy & Harding							X	X				X
Cirby & Riverside							X	X				X
Eureka & Taylor			X	X			X	X			X ¹	X
Roseville Pkwy & Pleasant Grove				X			XA	X				
Douglas & Rocky Ridge								X			X	X
Lead Hill & Sunrise				X			X	X		X		X
Roseville Pkwy & Sierra College								X		X ²		X ²
Harding & 65 Bypass S. Ramps								X		X ²		X
Mitigation												
Level 1 = At-grade improvements												
Level 2 = TSM												
A = North Central and Northwest Specific Plan area, North Industrial, and City Infill												
B = All four Specific Plan area, North Industrial, and City Infill												
Level 3 = Grade separation improvements												

¹ Requires prohibition of southbound left-turns at least during the PM peak period.² Requires TSM at level 2 with either at-grade improvements (triple left-turn lanes northbound to westbound) or grade separation

SOURCE: Fehr and Peers Associates, Inc.

3.8 CLIMATE AND AIR QUALITY

SETTING

Climate

Geography plays a significant role in weather patterns throughout the California Central Valley, including the project vicinity. The Central Valley, which extends from south of Bakersfield to north of Redding, is bounded by the Sierra Nevada on the east, the Coast Range on the west, the Tehachapi Range on the south, and the Cascade Range on the north. These mountain ranges tend to buffer the Valley from the marine weather systems which originate over the Pacific and are drawn inland by the jet stream. The only breach in this barrier is the Carquinez Straits which exposes the midsection of the Valley to the Pacific Coast marine weather regime. The Sacramento area is noticeably affected by this marine influence, which moderates climatic extremes. This is especially evident on summer evenings when cooling occurs as a result of the penetration of sea breezes.

The climate of the vicinity is typically polarized between summer and winter seasons. 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. Annual precipitation averages 25 inches; 90 percent falls from November through April. 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. Prevailing winds are from the southwest with a secondary concentration from the northwest. Air stagnation due to formation of surface and/or elevated inversions is common in the late summer and fall. Surface inversions are formed when cool air is trapped close to the surface by a layer of warm air above it. Elevated inversions occur when a layer of cool air is suspended between warm air layers above and below it. Stagnation allows for the concentration of contaminants, subjecting persons in the region to elevated pollution levels and consequent increases in hazards to health.

Air Quality

The 1970 Clean Air Act, as amended in 1970 and 1977, gave the U.S. Environmental Protection Agency (EPA) the authority to establish federal ambient air quality standards. The EPA established federal standards for a variety of air pollutants; those most important to California include: photochemical oxidants (ozone), carbon monoxide (CO), suspended particulates (PM₁₀), nitrogen dioxide (NO₂), and sulfur dioxide (SO₂). State standards were established in California in 1969. The state and federal standards presented in Table 3.8-1, provide acceptable durations for specific contaminant levels. Primary standards were established to protect public health and secondary standards were established to protect public welfare from effects such as visibility reduction, soiling, and nuisance. Adverse health effects resulting from

TABLE 3.8-1
FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

	Averaging Time	Federal Primary Standard	Federal Secondary Standard	California Standard
Ozone	1-hour	0.12 ppm ¹	0.12 ppm	0.10 ppm
Carbon Monoxide	1-hour	35.0 ppm	35.0 ppm	20.0 ppm
	8-hour	9.0 ppm	9.0 ppm	9.0 ppm
Nitrogen Dioxide	1-hour	--	--	0.25 ppm
	Annual	0.05ppm	0.05 ppm	--
Sulfur Dioxide	1-hour	--	--	0.5 ppm
	24-hour	0.14 ppm	--	0.05 ppm
	Annual	0.03 ppm	--	--
Suspended Particulates ²	24-hour	150 ug/m ³	150 ug/m ³	50 ug/m ³
	Annual	50 ug/m ³	60 ug/m ³	30 ug/m ³

¹ ppm = parts per million, ug/m³ = micrograms per cubic meter.

² The California standards are for particulate material less than 10 microns in diameter, usually designated PM₁₀.

exposure above these standard levels are listed for each major pollutant in Table 3.8-2. These standards have been designed to protect those people most susceptible to respiratory distress such as asthmatics, the elderly, young children, people weakened by illness, or persons engaged in strenuous work or exercise.

The California Air Resources Board (CARB) coordinates and oversees both state and federal air pollution control programs. The CARB monitors existing air quality, establishes state standards (which in many cases are more stringent than federal standards as shown in Table 3.8-1), limits allowable emissions from vehicular sources, and is responsible for putting together a State Implementation Plan to attain federal primary standards. The CARB has divided the state into many single and multi-county air basins. Authority for air quality management within the air basins has been given to local Air Pollution Control Districts (APCD).

The southern portion of Placer County, including Roseville, is located within the Sacramento Valley Air Basin along with Sacramento, Yolo, Sutter, Shasta, Yuba, Glenn, Butte, Tehama, and a portion of Solano Counties. The project site lies within the jurisdiction of the Placer County Air Pollution Control District. Although primary responsibility for attainment and maintenance of air quality standards lies with the APCD, the area is also subject to the regulations of the Sacramento Valley Air Basin, the California Air Resources Board, and the EPA.

Air quality problems in the southeastern portions of the Sacramento Valley air basin are much more severe than in the west and north. However, emissions of air pollutants to the north and west contribute to air quality problems in the southern reaches of the basin. In recognition of this linkage, Yolo, northern Solano, Sacramento, and western Placer Counties were all made part of the Sacramento Air Quality Maintenance Area (SAQMA).

Pursuant to Clean Air Act requirements, all areas of California have been classified as to their attainment status with regard to the National Ambient Air Quality Standards. The SAQMA was designated a non-attainment area for ozone, and recognized as an area subject to localized violation of the carbon monoxide and suspended particulate standards. To facilitate attainment of the ambient air quality standards the Sacramento Air Quality Plan was prepared. Measures identified in the Air Quality Plan were intended to achieve attainment of the ambient air quality standards by December 1987. The Air Quality Plan expired December 31, 1987, and attainment of the ambient air quality standards was never achieved. Adoption of a new air quality plan is expected in early 1990. The Sacramento Area Council of Governments (SACOG) is preparing a new air quality plan. Efforts to date have failed to develop a plan capable of achieving the ambient air quality standards within a length of time considered acceptable to the EPA. Consequently, the EPA has enacted a construction ban on new development of single-point stationary sources which would generate ≥ 100 tons of pollutant per year.

TABLE 3.8-2
HEALTH EFFECTS SUMMARY OF THE CRITERIA AIR POLLUTANTS

Air Pollutant	Adverse Effects
Ozone	-- Eye irritation -- Respiratory function impairment
Carbon Monoxide	-- Impairment of oxygen transport in the bloodstream, increase of carboxyhemoglobin -- 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
Sulfur Dioxide	-- Aggravation of chronic obstruction lung disease -- Increased risk of acute and chronic respiratory illness
Nitrogen Dioxide	-- Risk of acute and chronic respiratory illness
Total Suspended Particulates	-- Increased risk of chronic respiratory illness with long exposure -- Altered lung function in children -- With SO₂, may produce acute illness -- Particulate matter 10 microns or less in size (PM₁₀) may lodge in and/or irritate the lungs

SOURCE: Bay Area Air Quality Management District

Air Pollutants

Ozone

Geographic conditions in the Central Valley which are similar to those in the Los Angeles basin, coupled with frequent atmospheric inversions resulting in air stagnation and rapid urban growth, make ozone levels in the Sacramento region a special concern.

Primary or direct pollutants are those pollutants which are emitted into the environment. Hydrocarbons and nitric oxides are primary pollutants generated by motor vehicle operation and emitted as exhaust. Secondary or indirect pollutants are pollutants which are formed in the atmosphere, usually as the result of a reaction involving primary pollutants. Ozone is a secondary pollutant which forms as a result of the interaction of ultraviolet light, hydrocarbons (HCs), and nitric oxides (NO_x).

The nearest air sampling station to the plan area which measures ozone is located in downtown Roseville. Continuous ozone monitoring was not initiated at this location until August of 1988, and consequently, an insufficient amount of data has been collected to provide an accurate assessment of local conditions. A summary of the recorded values at this station are presented in Table 3.8-3. As shown, two one-hour periods were recorded in August when the one-hour ozone concentration reached 13 ppm, constituting violation of the 12 ppm standard.

The City of Folsom is located northeast of the Sacramento metropolitan area, and regularly has been the location of the highest recorded ozone levels in the region. Consequently, the Placer County 1985 Air Monitoring Report, prepared in 1986, stipulates that ozone levels recorded in Folsom should be considered worst case conditions for the SAQMA. These levels are presented in Table 3.8-4. These measurements were used to determine ambient levels for modeling in this report.

Ozone tends to be a highly reactive molecule which readily combines with many different components of the atmosphere. Consequently, high levels of ozone tend to exist only while high hydrocarbon and NO_x levels are present to sustain the ozone formation process. Once the precursors have been depleted, ozone levels rapidly decline. Motor vehicles are a primary source of carbon monoxide, hydrocarbons, and nitrogen oxides. Because of the direct link between vehicular emissions and ozone formation, air quality programs focus on reduction of mobile source emissions, and significant reductions have been achieved, most notably through the mandated state inspection program. Unfortunately, reductions in hydrocarbons and NO_x have not resulted in a corresponding decline in ozone violations in the Sacramento area.

Because ozone is a secondary pollutant whose formation is dependent upon atmospheric conditions, an accurate method of predicting the amount of ozone which would be generated by any given activity does not exist. However, since ozone production is dependent upon the level of hydrocarbons present in the atmosphere, it may be concluded that ozone generation should be similar in magnitude to the production of hydrocarbons generated by any given activity. Hydrocarbon production from motor vehicle operation can be estimated based on the predicted

TABLE 3.8-3

SUMMARY OF OZONE OBSERVATIONS
ROSEVILLE SAMPLING STATION (PPM)

Month	Mean of All Hours Sampled	Highest 1-Hour Level Recorded	No. of 1-Hour Exceedances Recorded	Mean of the Daily Peak Hours
April 1989	N/A	8	0	N/A
March 1989	N/A	6	0	N/A
February 1989	2.2	6	0	3.8
January 1989	1.8	6	0	3.2
December 1988	1.4	5	0	3.0
November 1988	1.2	6	0	2.7
October 1988	2.7	11	0	6.4
September 1988	3.6	12	0	7.6
August 1988	3.7	13	2	8.2

TABLE 3.8-4

ANNUAL STATISTICS
OZONE LEVELS MEASURED AT THE
FOLSOM MONITORING STATION (PPM)

Year	Hourly Concentration		Annual Mean		No. of Hourly Concentration >12	
	1st High	2nd High	1st High 911 Hours	2nd High Daily Max	Days	Hours
1988	.17	.16	.032	.064	19	48
1987	.16	.16	.032	.064	17	37
1986	.15	.15	.028	.058	7	13
1985	.17	.17	.027	.058	13	37
1984	.18	.16	.026	.058	19	40
1983	.14	.14	.024	.051	7	15

SOURCE: California Air Quality Data Summaries 1988, ARB

number and length of vehicular trips. To predict future vehicular emissions associated with proposed land uses, the Air Resources Board developed the urban emission model, URBEMIS. Inputs to the model include land use, temperature, year of project, and estimates of trip generation, destination (distance), and speed. The results of the model include a predicted number of annual trips, miles traveled, and emissions generated. URBEMIS was used to predict emissions from future land uses in the Plan area. The result of the analysis is presented later in this section.

Carbon Monoxide

The nearest air sampling station to the Plan area which measures carbon monoxide is located in downtown Roseville. However, carbon monoxide monitoring was not initiated at this location until October of 1988, and consequently, an insufficient amount of data has been collected to provide an accurate assessment of local conditions. From October through December 1988, the highest one-hour carbon monoxide level recorded was 7.0 ppm. This level occurred on December 1 at 5:00 pm. The highest eight-hour average was 4.5 ppm which occurred during the early morning hours of December 3, 1988.

Excluding the new Roseville sampling station, the nearest air sampling station to the project site which monitors CO is located in Citrus Heights, Sacramento County. The recorded CO concentrations at this station are presented in Table 3.8-5. The federal eight-hour standard for CO was not exceeded between 1983 and 1987.

In the Sacramento region, combustion of petroleum fuels is the principal source of carbon monoxide. Carbon monoxide tends to dissipate rapidly into the atmosphere, and consequently, violations of the CO standard are generally limited to major intersections during peak hour traffic conditions.

Carbon monoxide concentrations can be predicted along roadways and at intersections using CALINE4, the fourth generation California Line Source Dispersion Model, developed by Caltrans. Input data for this model includes meteorology, street network geometrics, site data, traffic volumes, and emission generation rates. Meteorological data required includes temperature, wind angle, and wind speed. Street network geometrics require use of an x,y coordinate system onto which the modelled roadway can be overlayed in order to identify the relative locations of the traffic lane(s) and nearby receptor(s). Site data includes a basic description of the terrain surrounding the modelled location. Required traffic information generally includes peak hour traffic volumes, average speed, and when modelling an intersection, signal cycle times. Emission generation data is obtained from the emission factor program, EMFAC7PC, which requires input information relating to vehicle mix, temperature, hot/cold start percentages, and year to be modelled.

TABLE 3.8-5**SUMMARY OF RECORDED CO LEVELS IN CITRUS HEIGHTS (PPM)**

	Hourly Conc.		8-Hour Mean		Recorded 8-Hr Conc. > 9	
	1st High	2nd High	1st High	2nd High	Days	Hours
1988	10.0	9.0	7.5	7.0	0	0
1987	8.0	8.0	5.0	5.0	0	0
1986	11.0	10.0	6.1	6.0	0	0
1985	9.0	9.0	7.4	6.5	0	0
1984	9.0	8.0	5.1	5.1	0	0
1983	9.0	8.0	5.4	5.3	0	0

SOURCE: California Air Quality Data Summaries 1988, ARB

Output from the model includes one-hour carbon monoxide concentrations (ppm) at selected receptor location(s). To reflect total concentrations, the ambient CO concentration of the vicinity must be added to the CO concentration predicted by CALINE4. The ambient concentration is calculated as the average of the second highest annual eight-hour observation at the nearest representative monitoring station over the past three years. Carbon monoxide concentrations surrounding key intersections in the Plan area were calculated for peak traffic conditions determined from the project traffic analysis. Four receptors were assumed, one located at each quadrant of the intersection, at the edge of the right-of-way. A background concentration of 6.0 ppm and a persistence factor of 0.78 were calculated. The result of the analysis is presented later in this section.

Particulate Matter

Concern about the health impacts of breathing particulates resulted in revision of the Total Suspended Particulate (TSP) standard to reflect particulates which are small enough to be considered "inhalable," i.e., 10 microns or less in size. Current standards define acceptable concentrations of particulates which are smaller than 10 microns in diameter, referred to as the PM_{10} . As PM_{10} is a relatively recent method of reporting particulate levels, PM_{10} monitoring did not commence in the vicinity until the spring of 1984. At that time monitoring was initiated at the Citrus Heights air sampling station. The limited amount of data which has been collected at this location is presented in Table 3.8-6. The recorded PM_{10} levels have consistently exceeded the level of the state annual geometric mean of $30 \mu g/m^3$.

It should be noted that there is currently a wide discrepancy between federal and state suspended particulates. Areas which are in violation of the more stringent state standard may be in compliance with federal standards.

The composition of particulates can vary substantially, depending on the types of activities and land uses in the region. For example, grading of an undeveloped area would be expected to generate dust principally composed of soil and vegetation particles. In contrast, particulates generated from agricultural operations may include pesticides or herbicides, while particulates from motor vehicle exhaust can contain metals and by-products of incomplete combustion. Dust, generated during grading and land clearing is generally the most obvious form of particulate generation associated with development. The level of dust generation at any given location can vary substantially from day to day depending on numerous factors, such as, percent silt content of the soil, moisture level of the soil, wind direction and velocity, and level of construction activity. Studies indicate that assuming a medium level of construction activity, moderate silt content of the soil, and semiarid climate conditions, approximately 1.2 tons of dust per acre per month of construction would be generated (EPA-450/3-74-037, 1974).

TABLE 3.8-6

PM₁₀ LEVELS RECORDED AT CITRUS HEIGHTS (MICROGRAMS/M³)

Year	Annual Statistics				Number of Samples			
	High	Low	Geometric Mean	Arithmetic Mean	>50	>100	>150	>250
1988	99	12	38.0 ¹	43.8 ¹	16	0	0	0
1987	95	7	32.7 ¹	36.7 ¹	15	0	0	0
1986	110	9	33.1 ¹	38.4 ¹	10	1	0	0
1985	90	17	35.3 ¹		10	0	0	0
1984	55	16	33.6 ¹		2	0	0	0

¹ Data are valid, but incomplete, as insufficient number of points were collected to meet EPA and/or ARB criteria.

SOURCE: California Air Quality Data Summaries 1988, ARB

IMPACTS AND MITIGATION MEASURES

※ Decreased air quality as a result of construction-related activities

Construction activities would temporarily increase TSP and PM₁₀ concentrations in the project vicinity. Equipment and vehicles generate dust during clearing, excavation, and grading. Construction vehicle traffic on unpaved surfaces also generates dust, as would wind blowing over exposed earth.

The federal 24-hour PM₁₀ standard could be violated in the vicinity of construction. It is not possible to estimate accurately the PM₁₀ concentrations that would occur at or adjacent to construction sites because such concentrations are very sensitive to local meteorology and topography, to variations in soil silt and moisture content, and to the level of equipment use. However, EPA measurements at apartment and shopping center construction in the southwestern United States provide a rough indication of the maximum rate of particulate emissions. These measurements indicate that approximately 1.2 tons of dust are emitted per acre per month of construction activity. About 45 percent of this dust is comprised of large particles which would settle out rapidly on nearby horizontal surfaces. Large diameter particulates generated by construction are, therefore, of concern more as a soiling nuisance rather than for unhealthful impacts. The remaining fraction of small suspended particulates or PM₁₀ may aggravate the respiratory problems of new residents inhabiting the project site before all construction is complete. Therefore, any violations of the PM₁₀ standard would be considered a *significant impact*.

Construction vehicles and equipment also generate air contaminants from exhaust. Project plans are not yet specific enough to approximate these pollutant emissions, but are not expected to be large in comparison to project operational emissions. Decreased air quality as a result of construction-related activities constitutes a *potentially significant impact*.

The greatest short-term air quality impact associated with development of the Plan area will be the generation of dust during grading and construction activities. This is a *potentially significant impact*.

Mitigation Measures

Implementation of Mitigation Measure 3.8-1 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.8-1 *Implement measures identified in Specific Plan relating to construction activities such as dust control, site watering, restrictions on truck transport, etc.*

6.5.1.5 Comply with the Dust Control Strategies developed by the Placer County APCD.

6.5.1.6 Water exposed earth surfaces during clearing, grading, earthmoving, and other site preparation activities to reduce dust by 50 percent.

- 6.5.1.7 Require construction contracts to include watering in late morning and at the end of the day.
- 6.5.1.8 Use tarpaulins or other effective covers for haul trucks which travel on public streets.
- 6.5.1.9 Institute measures to reduce wind erosion when site preparation is completed.

Mitigation Measures Recommended by the EIR

3.8-2 *No additional mitigation measures required.*

✱ **Decreased regional air quality**

Emissions from motor vehicle operation are anticipated to represent the greatest long-term air quality impact associated with development of the NCRSP area. The urban emission model, URBEMIS2, was used to predict the quantities of future emissions generated under buildout conditions. The model indicates that trips produced within the Plan area will generate approximately 5,272 tons per year of carbon monoxide, 475 tons per year of reactive organic gases, and 495 tons per year of nitric oxides. This is a *significant impact*.

Assessment of project impacts and cumulative local buildout effects on CO concentrations entails computer modeling of CO emissions at street intersections with the highest traffic volumes. The CALINE4 diffusion model, which was developed by Caltrans and is recommended by CARB, was used for this analysis. Worst-case conditions were modeled for the year 2005, the earliest year in which full buildout of all four Specific Plan areas could occur. Table 3.8-7 presents the results for the receptor exposed to the highest concentrations at each intersection. Violation of the federal ambient eight-hour standard and the California eight-hour and one-hour standards is predicted to occur at the modelled locations under worst-case conditions. This is a *significant impact*.

Assuming that the amount of ozone that forms in the atmosphere will be similar in magnitude to the volume of NO_x generated, the Plan area will be responsible for the formation of approximately 495 tons of ozone per year. This is a *potentially significant impact*. Individual development projects will be subject to APCD review.

As additional dwelling units will also increase the amount of fireplace and wood stove use, there will be an increase in particulate and CO emissions from these uses. These figures can be found in Table 3.8-8. These emissions are a *potentially significant impact*.

TABLE 3.8-7
WORST-CASE PREDICTED CO CONCENTRATIONS
AT SELECTED INTERSECTIONS

	Concentration (ppm)	
	One-Hour	Eight-Hour
Federal Standard	35.0	9.0
California Standard	20.0	9.0
Harding Blvd./Hwy 65 Bypass	8.3	7.7
Harding Blvd./Roseville Parkway	17.2	14.1
Pleasant Grove Blvd./Roseville Pkwy	16.0	13.2

Mitigation Measures

Implementation of Mitigation Measures 3.8-3 through 3.8-6 will reduce project impacts, but not to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.8-3 *Implement policies identified in Specific Plan which address compliance with agency policies, including TSM.*

6.5.1.1 This Specific Plan shall be amended upon the completion and adoption of the City of Roseville Air Quality Plan, and shall be in conformance with the Sacramento Air Quality Plan as directed by the City Plan.

6.5.1.2 The TSM measures established in the City Ordinance shall be fully implemented in this Plan Area.

6.5.1.3 Park and ride lots shall be strategically located in the Plan Area to facilitate ease of use.

6.5.1.4 The use of public transportation systems will be an integral consideration in all site designs for commercial, business-professional, and light industrial land uses.

Mitigation Measures Recommended by the EIR

3.8-4 *Implement development of planned bicycle pathways in NCRSP. (Mitigation Implementation Responsibility: City of Roseville Planning Department and Parks and Recreation Department)*

The NCRSP includes pedestrian and bicycle pathways to link residential neighborhoods with the parks, commercial, and business-professional uses. In addition to bikeways along major roadways in the Plan area, stream corridors may be utilized as pathway alignments.

3.8-5 *Improve overall traffic flow. (Mitigation Implementation Responsibility: City of Roseville Planning Department and Public Works Department)*

Because motor vehicle emissions rise as vehicle speeds decrease, measures to improve overall traffic flow are recognized as effective measures for reducing vehicular emissions. As discussed in the Traffic Section of this report, the roadway network proposed in the Specific Plan area is designed to maintain LOS C.

3.8-6 *Participate in state and local air quality programs. (Mitigation Implementation Responsibility: City of Roseville Planning Department and Public Works Department)*

Motor vehicle emissions are being partially mitigated on a regional scale, primarily by state-mandated emission controls and the recently initiated motor vehicle emission inspection program. Table 3.8-9 shows the recent trends in carbon monoxide emissions in Sacramento County. As can be seen in the table, the trend is downward, with a more pronounced decrease when implementation of controls is considered.

TABLE 3.8-8
WOODSTOVE AND FIREPLACE EMISSIONS FOR NCRSP

Type ¹	DU ²	Lbs. Particulate	Lbs. CO
Full-time w/catalytic stove ^{3,4}	448	11,200	34,944
Recreation w/fireplace ⁵	672	5,457	33,130
Recreation w/catalytic stove ⁶	336	2,453	7,594
Recreation w/non- catalytic stove ⁷	<u>336</u>	<u>3,797</u>	<u>26,309</u>
TOTAL	1,792	22,907	101,977

EMISSION RATES PER CORD OF WOOD BURNED⁸

	Particulates	CO
Fireplaces	28	170
Catalytic stoves	25	78
Noncatalytic stoves	39	270

¹ Based on low- and medium-density residential dwelling units

² du = dwelling units

³ 25 percent of homes will rely on woodburning, catalytic stoves as a heat source

⁴ Assumed to burn one cord of wood per year

⁵ 50 percent of homes will use recreational fireplaces for recreational wood burning

⁶ 25 percent of homes will use catalytic stoves for recreational wood burning

⁷ 25 percent of homes will use noncatalytic stoves for recreational wood burning

⁸ Annual emissions from recreational wood use equal 2/7th of the full time emission factors.

SOURCE: R.C. Fuller Associates, EIP Associates, Placer County APCD

TABLE 3.8-9

CARBON MONOXIDE EMISSIONS IN SACRAMENTO COUNTY
(TONS PER AVERAGE ANNUAL DAY)

	1979	1981	1983	1985	1987	1989	1991	1993	1995
Baseline	618	582	567	547	522	504	501	499	494
Controlled				453	433	419	418	417	414

SOURCE: Report on Reasonable Further Progress during Calendar Year 1983.
Sacramento Area Council of Governments.

3.9 NOISE

SETTING

Background

Human response to environmental noise is subjective and varies considerably from individual to individual. Noise is usually defined as unwanted, disturbing sound. The effects of noise can range from interference with sleep, concentration, and communication, to physiological and psychological stress and, at the highest intensity levels, to hearing loss.

Listed below are several examples of the noise levels associated with common situations, given in dBA:

Jet takeoff at 200 feet	125 dBA
Discotheque	115 dBA
Motorcycle at 20 feet	110 dBA
Freight train at 50 feet	95 dBA
Freeway traffic at 50 feet	80 dBA
Vacuum cleaner	70 dBA
Average office	50 dBA
Library	40 dBA
Recording studio	20 dBA
Leaves rustling	10 dBA

The seriousness of any given sound is a combination of its intensity and duration, and time of day. Louder noises are perceived as acceptable if they last for shorter periods of time. Similarly, levels which may be regarded as acceptable during the day, can be annoying or intolerable during evening or nighttime.

Sound is a mechanical form of radiant energy which is transmitted by pressure waves in the air. It is characterized by two parameters: amplitude and frequency.

Amplitude is interpreted by the ear as corresponding to different degrees of loudness and is measured in decibels (dB). Laboratory measurements correlate a 10-dB increase in amplitude with a perceived doubling of loudness and establish 2-dB change in amplitude as the minimum audible difference for an average person. Frequency is the number of wave fluctuations per second. The unit of frequency is the Hertz (Hz). Sound waves below 16 Hz or above 20,000 Hz cannot be heard by the human ear, and the ear is more sensitive to sound in the higher portion of this range than in the lower. To approximate the sensitivity of the ear to different frequencies, sound is usually measured in A-weighted decibels (dBA).

Several methods have been developed to describe noise intensity and fluctuation. The most commonly used are L_{dn} and CNEL. L_{dn} , the day-night average noise level, is the 24-hour average of the noise intensity, with a 10-dBA "penalty" added for nighttime noise (10 PM to 7 AM) to account for greater sensitivity to noise during this period. CNEL, the community noise equivalent level, is similar to L_{dn} , but adds a 5 dBA penalty to evening noise. These methods are only applicable to relatively constant sounds such as traffic or train noise. The impacts of intermittent noise, sounds which are relatively loud for short periods, may be underestimated by L_{dn} or CNEL.

Intermittent noise can pose a unique situation for regulation. Because of its infrequent nature, this type of noise may produce unusually loud sounds for short periods of time, but because of the averaging nature of L_{dn} or CNEL, may not result in a violation. These brief but loud sounds can be as annoying and disruptive to the community as noise of longer duration but less volume. In response to this type of situation, many communities have adopted performance standards as a method of regulating intermittent noise. Performance standards entail limiting the amount of time that sounds in excess of a specified level may be generated. For example, a manufacturing plant may be allowed to generate exterior sounds in excess of 60 dB for a total of five minutes in every hour.

Regulations

Though the State of California has adopted noise standards, establishment and enforcement of noise standards is largely the responsibility of local communities. Standards are usually established through adoption of a Noise Element to a General Plan.

The California Department of Health Services Office of Noise Control (ONC) has studied the correlation of noise levels with specific land uses and their effects on different land uses. Table 3.9-1 presents noise levels associated with various land uses as recommended by ONC. The table shows the noise levels (in this case, L_{dn}) below which the land use would be compatible with the exterior noise environment without special noise insulation requirements (i.e., for commercial uses, the exterior noise level above which special noise insulation would be required is an L_{dn} of 70 dBA). It also shows the noise levels above which the land use would be considered unacceptable due to the difficulty of providing the needed noise insulation (i.e., for commercial uses, this level would be an L_{dn} of 75 dBA).

The State of California has established stringent requirements for multifamily dwellings. Title 24 of the California Administrative Code requires acoustical analysis for multifamily dwellings proposed for location with the 60 dB L_{dn} contour, with a maximum allowable interior noise level of 45 dB L_{dn} specified.

For planning purposes, the City of Roseville uses recommendations in ONC's publications including the criteria presented in Table 3.9-1. Roseville does not have a noise ordinance nor performance standards for control of intermittent noise. The Noise Element of their General Plan, however, is scheduled for revision in the near future and performance standards may be incorporated at that time.

LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS

TABLE 3.9-1

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE L _{dn} OR CNEL, dB							
	55	60	65	70	75	80		
RESIDENTIAL - LOW DENSITY SINGLE FAMILY, DUPLEX, MOBILE HOMES								
RESIDENTIAL - MULTI. FAMILY								
TRANSIENT LODGING - MOTELS, HOTELS								
SCHOOLS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES								
AUDITORIUMS, CONCERT HALLS, AMPHITHEATRES								
SPORTS ARENA, OUTDOOR SPECTATOR SPORTS								
PLAYGROUNDS, NEIGHBORHOOD PARKS								
GOLF COURSES, RIDING STABLES, WATER RECREATION, CEMETERIES								
OFFICE BUILDINGS, BUSINESS COMMERCIAL AND PROFESSIONAL								
INDUSTRIAL, MANUFACTURING UTILITIES, AGRICULTURE								

INTERPRETATION



NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.



CONDITIONALLY ACCEPTABLE

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.



NORMALLY UNACCEPTABLE

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.



CLEARLY UNACCEPTABLE

New construction or development should generally not be undertaken.

Noise Analysis

Although numerous factors may be evaluated in analysis of traffic-generated noise, the principal considerations are vehicle trips, speed, and the distribution of traffic over time. The Federal Highway Administration (FHWA) has developed the FHWA-RD-77-108 model to predict traffic noise impacts along roadways. This model is founded on the premise that noise attenuates over distance. For example, noise produced by traffic could be 75 dB at its source. However, as the sound travels away from the road, its volume will decrease proportionate to the distance traveled. At 50 feet from the roadway, the same sound may be only 70 dB, and at 100 feet may be less than 60 dB. The model does not take into consideration any obstructions to noise, such as fences, irregular terrain, or structures. Consequently, predictions from the model are considered worst case and, in actuality, noise impacts may be significantly less than those identified by the model. Inputs to the model include vehicle type mix, traffic distribution data, travel speed, and roadway width. The model can be configured to predict the distance to various noise contours, as well as levels at specific receptor locations.

Existing Noise Environment

Presently, sounds generated over the majority of the NCRSP area are extremely limited and include noise produced by wind, dry grasses, wildlife, and other natural sources, all of which are less than 50 dB L_{dn} . The Highway 65 Bypass is the only notable noise-producing land use within the Plan area. The FHWA model indicates that, under existing conditions, the 60-dB L_{dn} noise contour is located approximately 1,221 feet from the centerline of this roadway.

Existing sounds from outside of the NCRSP area include traffic noise from adjacent roadways and sounds from adjacent residential neighborhoods of the City, neither of which are significant within the Plan area. The portion of the Plan area generally north of the Highway 65 Bypass is exposed to industrially generated noise between 50 dB L_{dn} to 60 dB L_{dn} from the aggregate harvesting operation in Placer County. The extreme southeastern portion of the Plan area is exposed to noise generated by SPRR tracks adjacent to the plan area. Train operations along this segment of track include 12 freight trains at random times during the day, and two Amtrak trains in the late afternoon. The 60-dB L_{dn} contour generated by these train operations is located ± 587 feet from the railroad tracks, the 65 dB L_{dn} is ± 270 feet from the tracks.

IMPACTS AND MITIGATION MEASURES

※ Temporary increase in noise levels due to project construction

Construction generated noise associated with project implementation would temporarily affect the surrounding area. The major noise impacts of construction would be due to construction vehicles and machinery. As shown in Table 3.9-2, these noise levels can be expected to range from 70 to 95 dBA at a distance of 50 feet.

TABLE 3.9-2
CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment Type	Maximum Level dBA (Measured at 50 Feet)
Scrapers	88
Bulldozers	87
Heavy Trucks	88
Backhoe	85
Pneumatic Tools	85
Chain Saw	95

SOURCE: Patrick Cuniff, Environmental Noise Pollution, 1977

Construction-related noise levels are considered a *potentially significant impact*.

In addition to these "heavy" construction activities, sounds generated by builders will be produced at varying locations within the Plan area. Residents of initial homes in the Plan area, as well as adjoining neighborhoods, will be exposed to noises associated with ongoing home construction. These sounds will include power tools, hammering, and other general construction noises. Although construction noises may be annoying to some residents, such activity can be performed without violation of the recognized noise standards.

Blasting is prohibited by City policy, and development of the Plan area is proposed without blasting. Nonetheless, it is possible that an unavoidable situation could arise where blasting would be required for the installation of underground facilities. If blasting were to occur, noise in excess of 100 dBA within 50 feet of detonation would be expected. This is considered a *potentially significant impact*.

Mitigation Measures

Implementation of Mitigation Measures 3.9-2 through 3.9-4 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.9-1 *None identified.*

Mitigation Measures Recommended by the EIR

3.9-2 *Use mufflers, enclosure panels, or other noise suppression attachments on all equipment as appropriate and turn off equipment when not in use. (Mitigation Implementation Responsibility: Developers, Contractors)*

3.9-3 *Limit construction to daytime hours (Mitigation Implementation Responsibility: City of Roseville Planning Department and Public Works Department)*

Roseville should limit all construction activities to daytime hours (7 AM to 7 PM) Monday through Friday. Construction activities on weekends should be restricted to special requests only at the discretion of the Roseville Planning Department. This restriction should be indicated on grading and building permits.

3.9-4 *Perform any blasting in accordance with City-imposed conditions. (Mitigation Implementation Responsibility: City of Roseville Department of Public Works)*

If blasting is considered unavoidable, the City will be petitioned and appropriate conditions will be established to allow blasting. If the activity is required in the proximity of existing development, property owners will be notified in advance as to the time and location of the blasting, and all reasonably recognized precautions to minimize surrounding impacts would be used. The radius for notification of

blasting would be dependent upon such considerations as the type and extent of blasting proposed and site characteristics. Specific distances must be identified by the engineer performing the blasting. This distance should be no less than one-quarter mile from the blasting site.

✱ **Increase in ambient noise levels due to project area buildout**

Long-term sounds, which will become characteristic of the residential environment in the Plan area, will include lawn mowers, stereos, traffic, and children at play. Of all the typical residential sounds which will be generated in the Plan area, none, with the possible exception of traffic, are anticipated to violate the recognized standards. This is considered a *less-than-significant impact*.

The results of the FHWA modelling for roadways within the Plan area are presented in Table 3.9-3. To assume worst-case conditions, traffic volumes utilized in the model were those associated with buildout conditions for all four Roseville Specific Plan areas.

The NCRSP proposes residential land uses along some of these roadways. The NCRSP currently requires sound walls on all arterial streets adjacent to single-family dwellings. This is considered a *potentially significant impact*.

The NCRSP proposes B-P and multifamily residential land uses in the vicinity of the SPRR tracks. The 60-dB L_{dn} contour generated by train operations is located ± 587 feet from the railroad tracks, the 65-dB L_{dn} contour is ± 270 feet from the tracks. This is a *potentially significant impact*.

The NCRSP includes a fire station. A Class A siren approved for use in California must have a minimum sound level output measured at three meters of 120 dBA on the axis and 113 dBA at 50½ right and left. Residential land use across from the fire station will be routinely exposed to this noise source. Under the ONC guidelines, emergency equipment is exempted from the noise standards identified in Table 3.9-1. Therefore, this is a *less-than-significant impact*.

Mitigation Measures

Implementation of Mitigation Measures 3.9-5 through 3.9-10 will reduce project impacts to a less-than-significant level.

TABLE 3.9-3
CALCULATED DISTANCES TO NOISE CONTOURS
FROM AREA ROADWAYS, 2005 BUILDOUT OF ALL
ROSEVILLE SPECIFIC PLAN AREAS

Roadway	Noise Contour dB Ldn			
	60	65	70	75
Interstate 80				
1. South of Highway 65 interchange	1,690 ¹	784	364	169
Highway 65 Bypass				
2. Between I-80 and Highway 65	1,221	567	263	122
Harding Boulevard				
3. North of Roseville Parkway	310	144	67	31
4. South of Roseville Parkway	256	119	55	26
Roseville Parkway				
5. East of Harding Blvd.	269	125	58	27
6. West of Harding Blvd.	242	112	52	24
7. East of Pleasant Grove	197	92	43	20
8. West of Pleasant Grove	111	52	24	11
Pleasant Grove Boulevard				
9. North of Roseville Parkway	188	87	41	19
10. South of Roseville Parkway	230	107	49	23

¹ Distance in feet, calculated using FHWA Model RD-77-108

SOURCE: R.C. Fuller Associates, May 1989

Mitigation Measures Identified in the Specific Plan

3.9-5 *Adhere to policies presented in the Specific Plan, including building orientation, use of sound walls and berms, and establishing of performance conditions.*

- 2.4.3.3 Each residential area is inwardly oriented, away from heavily traveled streets. The rear and side property lines of individual residences abut adjacent arterial streets. Walls are used to provide visual privacy and attenuate traffic noise where appropriate.
- 2.4.5.7 Buffering between multi-family development and major roadways, or nonresidential uses, shall be provided by setbacks, soundwalls, landscaping, and berming, or a combination of all these.
- 2.5.4.7 Commercial projects adjacent to single-family residential land use will be subject performance conditions as part of the project review process. Such standards may include, but are not limited to, noise generation, hours of operation, types of use, delivery times, etc.
- 2.6.1.9 Projects adjacent to residential land use may be subject to performance conditions as part of project review process. Such standards may include, but are not limited to, noise generation, type of use, and hours of operation.
- 2.8 The industrial area will first be evaluated to ensure that impacts from noise, light, vibration, odor, and other factors do not exceed City standards and will not cause adverse impacts on nearby residential neighborhoods.
- 3.7.1 A six-foot fence or wall shall be provided along single-family residential areas adjacent to arterial and collector streets to provide visual screens and acoustical barriers as illustrated in Figure 3-3, Arterial Landscape Illustration. The fence is to be located at the back edge of the landscaped corridors specified in Section 5, the Circulation Element.
- 3.7.2 A six-foot high masonry wall shall be provided between single-family residential neighborhoods and nonresidential uses to provide visual screens and acoustical barriers.
- 5.1.1 Noise buffering techniques, such as landscaping, berms, and acoustically designed walls may be utilized to attenuate noise impacts on residences adjacent to arterial streets. Noise impacts along the Bypass will affect primarily the light industrial business-professional, and commercial uses planned there which will serve as a noise buffer for

residential uses. In those instances, normal setback requirements and building design will mitigate most noise impacts.

- 5.8.3 A solid wood fence or masonry wall at least six (6) feet in height shall be provided between all arterial streets and residential neighborhoods to provide an acoustical and visual buffer.

Mitigation Measures Recommended by the EIR

- 3.9-6 *Comply with City noise performance standards for nonresidential land uses (light industrial). (Mitigation Implementation Responsibility: City of Roseville Planning Department and Engineering Department)*
- 3.9-7 *Provide berms for parks which may be subject to noise levels which exceed standards. (Mitigation Implementation Responsibility: City of Roseville Planning Department)*
- 3.9-8 *Require additional noise analysis to refine appropriate mitigation measures for those land uses in which projected noise levels exceed standards with proposed mitigation. (Mitigation Implementation Responsibility: City of Roseville)*

This analysis could include an onsite noise assessment to determine the actual location of noise contours. The need for such analysis will be at the discretion of the City. In situations where the predicted 60 dBA noise contour falls outside of the roadway or railroad right-of-way and within residential property, projects will be required to implement measures to reduce the noise to the recognized standards included in the Roseville General Plan Noise Element. Typical measures which may be implemented include setbacks, sound walls, and landscaped berms.

As stated previously, Title 24 of the California Administrative Code requires acoustical analysis for multifamily dwellings proposed for location with the 60 dB L_{dn} contour, with a maximum allowance interior noise level of 45 dB L_{dn} specified.

- 3.9-9 *Require setback of low-density residential development if other mitigation measures are not adequate. (Mitigation Implementation Responsibility: City of Roseville)*

Low-density residential units should be located within the 60-dBA L_{dn} noise contour line. Noise barriers could also be constructed so that noise levels are attenuated to less than 60 dBA L_{dn} .

- 3.9-10 *Encourage construction techniques which reduce interior noise levels of individual residential units (Mitigation Implementation Responsibility: Developers, Contractors)*

This includes wall insulation, double pane windows, properly sealed joints, and placement of bedrooms away from noise sources. As stated previously in accordance with state standards (Title 24), residential housing must attain interior noise levels of less than 45 dB.

3.10 PUBLIC FACILITIES AND SERVICES

WATER SETTING

The North Central Roseville Specific Plan area is within the service area of the City of Roseville. The City obtains most of its water through the Federal Bureau of Reclamation from Folsom Lake. Roseville is guaranteed, by contract, 32,000 acre-feet (af) of water per year. Of this allotment, the City used approximately 13,500 af, or roughly 42 percent in 1988. Recently, the City successfully negotiated for 10,000 af of water per year from the Placer County Water Association (PCWA). These negotiations include an additional option for 10,000 af/year to be used for municipal/industrial purposes.

In addition to federal and PCWA potable water sources, the City maintains a secondary water system which includes three potable deep wells for use during emergency or crisis situations; two reservoirs, one with a capacity of six million gallons and another with a capacity of two million gallons; and a pumping system capable of providing four million gallons per day (mgd). Additional reservoirs (or storage tanks) will be constructed in the future, although exact timing and locations are unknown. These reservoirs will have a capacity of two to four million gallons. The existing and proposed reservoirs will be adequate to accommodate anticipated development.¹

The Roseville water treatment plant has a treatment capability of 24 mgd, though it has a design capacity of 96 mgd. Existing flows average between 9 and 11 mgd; however, peak flows of 20 to 21 mgd have occurred on isolated occasions. Considering the treatment plant has experienced near-capacity flows under existing conditions, buildout of already approved land uses could generate a demand for water beyond the capability of the treatment plant. Expansion of the water treatment facility to 48 mgd is scheduled to be completed by April 1990.²

Water will be delivered to the North Central Plan area via a 36-inch trunk line water main at Atlantic Street and a 36-inch water trunk line in Roseville Parkway and a 24-inch trunk line in Harding Boulevard. Water will be distributed throughout the Plan area via a series of 12- and 16-inch lines located in the major arterial and collector streets.

IMPACTS AND MITIGATION MEASURES

❖ Increased demand for domestic water

Table 3.10-1 presents the water consumption rates used by the Roseville Public Works Department for planning purposes. Using the rates presented in the table, predicted water consumption by the major land uses within the Specific Plan area have been calculated. Buildout of the North Central Specific Plan area is predicted to require approximately 8.13 mgd. This volume is equivalent to roughly 24 af per day or 8,760 af per year. The Specific Plan area's estimated water demand is approximately 20 percent of the 42,000 af per year federal entitlement and PCWA water. (This figure does not include the additional option of 10,000 af/yr.)

TABLE 3.10-1
PREDICTED WATER CONSUMPTION BY MAJOR LAND USE

Land Use	Acres	Gallons Per ¹ Unit Per Day	Gallons Per Day
Residential Low Density (R-0 through R-5)	303.3 (1,340 du ²)	2,030	2,720,200
Medium Density (R-6 through R-10)	70 (546 du)	1,510	824,460
R-11 through R-15	7.5 (90 du)	660	59,400
R-16 through R-20	139.1 (2,616 du)	400	1,046,400
		Gallons Per Acre Per Day	
Business, Professional, and Commercial	493.6	4,200	2,073,120
Light Industrial	189.3	4,200	795,060
Elementary and Intermediate Schools	31.5	8,150	256,725
Neighborhood, Community, and Regional Parks ³	66.1	8,150	538,715
Fire Station	1.0	4,200	<u>4,200</u>
			8,135,080

¹ Figures provided by the Roseville Department of Public Works.

² du = dwelling unit

³ Preserve areas are not included as they do not use City water.

As the projected water demand for the NCRSP comprises 20 percent of current water allotments in Roseville, the impact is *less than significant*. The cumulative impact of increased water demand is, however, considered to be *potentially significant*. A discussion of the cumulative water demand in Roseville can be found in Section 4 of this document.

The Roseville Department of Public Works has indicated that expansion of the treatment plant to 48 mgd will be adequate to serve a City of approximately 60,000 people.³ Growth beyond this figure will likely require additional expansion of the water treatment plant. The impact to the water treatment plant is considered *potentially significant*.

The California Health and Safety Code Section 17921.3 requires that all new buildings install water-efficient toilets and urinals which use a maximum of 3.5 and 1.5 gallons per flush, respectively. Maximum flow rates for showerheads, lavatory faucets, and sink faucets are specified in the California Administrative Code, as required by the Public Resources Code Section 25402 and may not exceed 2.75 gallons per minute at water pressures up to 80 pounds per square inch.

Mitigation Measures

Implementation of Mitigation Measures 3.10-1 through 3.10-3 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.10-1 Adhere to policies identified in the Specific Plan.

6.4.1.15 Water conservation shall be encouraged through use of efficient plumbing fixtures, including flow devices, and the use of water conserving landscaping.

7.12.6 Native, drought tolerant, trees and shrubs shall be incorporated into parks landscape design where appropriate and feasible.

Mitigation Measures Recommended by the EIR

3.10-2 Require a water conservation landscape program. (Mitigation Implementation Responsibility: City of Roseville)

A water conservation landscape program can provide incentives for low-water-using landscapes in new developments, can persuade people to convert to low-water-using landscaping, and can encourage economy in watering landscapes. Program options include:

- ❑ Reduce connection fees for new homes with reduced turf areas.
- ❑ Plant gardens on public property or at model homes which demonstrate attractive low-water-using plantings, irrigation methods, and permeable walkways.

- ✧ Prepare a public information package which illustrates the benefits of reduced water bills and less yard maintenance, and includes a low-water-using plant list.
- ✧ Require standard conservation measures as elements of specific project designs. Such measures could include: landscaping with native drought-resistant vegetation, and use of drip irrigation.
- ✧ Consider alternatives to lawns for landscape corridors and City properties (such as ground cover and drought-resistant vegetation).

3.10-3 *Require that all new connections are metered.* (Mitigation Implementation Responsibility: City of Roseville)

Metering would impose an equitable rate structure; customers would pay according to the actual costs they impose on the system. The use of meters and/or seasonal rates tends to reduce water use.

✧ **Construction of additional infrastructure**

Development will require construction of infrastructure to provide water service to the Plan area (see Figure 3.10-1). The closest existing water mains to the Plan area are a 12-inch main in Diamond Oaks and 8-inch main at Berry Street. Water lines from northeast Roseville and the Roseville Parkway will be tied into water lines within the North Central Plan area. As the Roseville water system is gravity fed, no pumps will be necessary. As no problems are anticipated in the construction of additional infrastructure the impact is *potentially significant*, based on the following mitigation measures included in the NCRSP.

Mitigation Measures

Implementation of Mitigation Measures 3.10-4 through 3.10-7 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.10-4 *Adhere to the policies identified in the Specific Plan, Section 7.12 for all public facilities.*

- 7.12.1 Institutional uses other than neighborhood schools and parks shall be located on collector streets or major arterials so that associated vehicle traffic does not disrupt residential areas.
- 7.12.12 All public facilities to be constructed consistent with policies in the Resources Management Element, Section 6.
- 7.12.16 Public utilities, such as transformers, terminal boxes, meters, fire risers, backflow preventers and other similar facilities, shall be screened and oriented away from public view except as required by City or public utilities.

7.12.17 All public facilities to be designed and landscaped in a manner that complements adjacent non-public uses.

7.12.18 All institutional uses shall be of a design and scale that complements neighboring residential uses and shall incorporate landscaping, setbacks and siting standards similar to those required in adjacent land uses.

3.10-5 *Adhere to standards specified in Section 3, Community Design Guidelines.*

3.10-6 *Develop a master plan for water distribution.*

The entire water distribution system and each project will be subject to review by the Public Works Department prior to implementation. The distribution system will be built to meet City fire flow and pressure requirements.

3.10-7 *Formation of a Community Facility District is proposed as a funding mechanism for the installation of the water distribution system.*

Mitigation Measures Recommended by the EIR

3.10-8 *None Required.*

WASTEWATER SETTING

Wastewater treatment for the City occurs at the Roseville Wastewater Treatment Plant located on Booth Road near Dry Creek. Treated wastewater is discharged into Dry Creek. The treatment plant serves a regional area which includes the City and the Rocklin/Loomis Municipal Utility District (District). The District includes the municipalities of Rocklin and Loomis, and a portion of the unincorporated area of Placer County.

Currently, no sewer infrastructure exists within the NCRSP area.

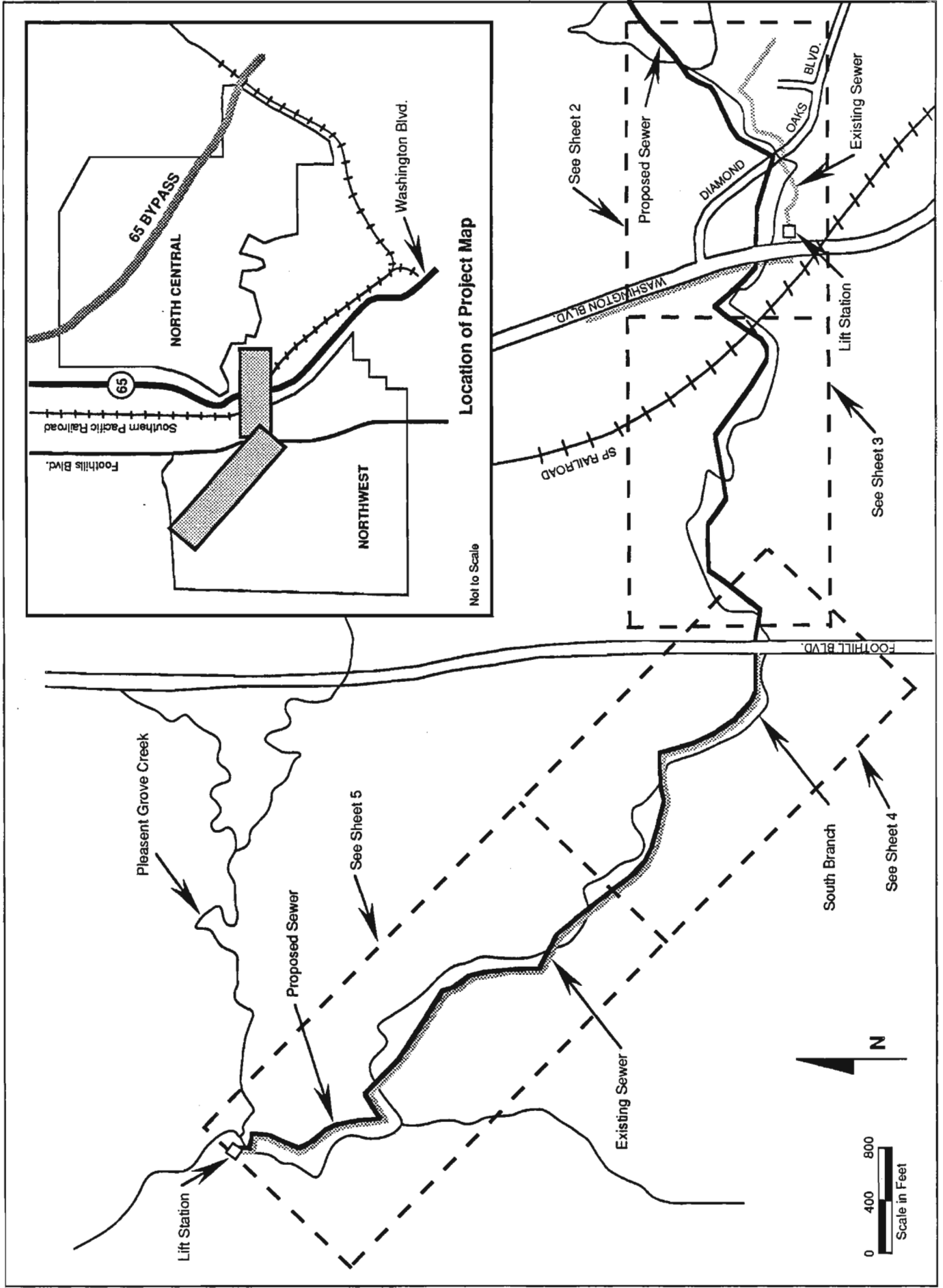
Implementation of the NCRSP will require construction of sewer facilities which are shown in Figure 34 of the North Central Roseville Specific Plan. In addition to the facilities identified in the plan, it may be necessary to construct a lift station east of Antelope Creek connecting with a trunk line which will cross Antelope Creek.

Offsite wastewater facilities will need to be constructed to accommodate wastewater generation within the NCRSP area. These include a less-than 100-foot connection to an existing 21-inch sewer line just west of the northwest corner of the project site and a 2.2 mile 24- to 30-inch diameter trunk line extension planned for construction along South Branch Pleasant Grove Creek, west of the NCRSP area (see Figure 3.10-1).

The Roseville Wastewater Treatment Plant has an existing average capacity of approximately 12 mgd. For a short period, the plant can operate at a maximum rate of 21 mgd; however, extended operation at this volume is not feasible. Average

Offsite Sewer Trunk Alignment

Figure 3.10-1



wastewater flows through the plant have been approximately 7.5 mgd, with peak daily flows of up to 18 mgd.

As a consequence of development already approved within the City, future wastewater volumes are predicted to exceed the current capacity of the treatment plant. To handle increasing flows, it is proposed that the facility be upgraded to handle an additional 6 mgd by 1993.⁴ The upgraded facility will have a design capacity of 18 mgd.

City policy is to anticipate needed increases in capacity and implement improvements to the treatment facility prior to reaching 75 percent of plant capacity. State law requires that, upon reaching 75 percent utilization, improvements are mandatory prior to continued growth.

The Roseville Department of Public Works utilizes a sewer unit equal to 400 gallons per day (gpd) as the basis for wastewater calculations. All residential dwellings are considered to represent a single sewer unit. Wastewater production for nonresidential land uses is calculated based on the square footage of building area. Building area is assumed to occupy a maximum of 25 percent of the parcel. Business professional, commercial, and light industrial land uses are assumed to generate wastewater at a rate of one sewer unit (400 gpd) per 3,000 square feet of building space. Schools are assumed to occupy only 15 percent of a given site and to generate wastewater at a rate of one sewer unit per 1,500 square feet of building space. It is assumed that open space and parks produce a negligible amount of wastewater.

IMPACTS AND MITIGATION MEASURES

※ Generation of increased sewage volumes

Using the generation rates provided by the City, predicted wastewater volumes generated by major land uses in the Plan area are presented in Table 3.10-2. Buildout of the Plan area will result in a projected increase of approximately 2.8 million gallons of wastewater. This volume is consistent with the proposed capability of the treatment facilities of the City and therefore is a *less-than-significant impact*. The cumulative increase in sewage volumes is also considered a *less-than-significant impact*. Section 4 of this document contains a discussion of the cumulative impact of increased sewage volumes.

Development will create the need for construction of infrastructure to serve the Plan area. This is a *potentially significant impact*.

The west portion of the Plan area is within the Northwest Roseville-Rocklin Sewer Assessment District. The portion of the Plan area that drains to the south and east can be served by a new line extending up Antelope Creek from Dry Creek and the existing sewer treatment plant. The Plan area will join existing sewer assessment districts which surround the area.

TABLE 3.10-2

PREDICTED WASTEWATER GENERATION BY MAJOR LAND USES

Land Use	Acres	Units	Gallons Per Unit Per Day	Gallons Per Day
Business, Professional, and Commercial	493.6	5,375,304 sf ^{1,2} (123.4 ac)	400 gpd/ 3,000 sf	716,707
Light Industrial	189.3	2,061,477 sf (47.33 ac)	400 gpd/ 3,000 sf	274,864
School Sites	31.5	205,821 sf ³ (4.73 ac)	400 gpd/ 1,500 sf	54,886
R-0 through R-5	303.3	1,340 du ⁴	400 gpd	536,000
R-6 through R-10	70	180 du	400 gpd	218,400
R-11 through R-20	146.6	2,522 du	400 gpd	<u>1,008,800</u>
TOTAL				<u>2,809,657</u>

¹ Buildings are assumed to occupy 25 percent of the total land area.

² sf = square feet

³ Schools are assumed to occupy 15 percent of the total land area.

⁴ du = dwelling units

SOURCE: Roseville Department of Public Works.

Mitigation Measures

Implementation of Mitigation Measures 3.10-9 and 3.10-10 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.10-9 *Street and other public infrastructure improvements required within the floodplain and riparian habitat shall be designed and sited to minimize the impact on the natural environment.*

This will be achieved by observing the following guidelines:

- ❑ Minimize the number of trees removed.
- ❑ Promptly revegetate cleared areas with native species.
- ❑ Place foot and bike paths/trails so that snags and trees favored by raptors are avoided, and require a raptor nest survey prior to construction in riparian areas.
- ❑ Locate creek crossings and sewer interceptors so that they minimize intrusion into riparian vegetation areas.
- ❑ Minimize the number of paths/trails.
- ❑ Design all Antelope Creek crossings to permit movement of wildlife beneath them.
- ❑ Design all stream crossings to 100-year event.
- ❑ Design stream crossings such that crossing approaches are as close to a right angle as possible.
- ❑ Require specific erosion and sediment control plans for all construction activity.
- ❑ Construction activities during non-summer seasons within the 100-year flood plain shall be coordinated with the City and the Department of Fish and Game.
- ❑ Require input from biologists when designing any improvements/structures intended to occur or be developed within areas identified in the project EIR as riparian habitat areas.
- ❑ Replace native trees as directed by the policies of this Specific Plan and the City Ordinances.

Any public works projects in the floodway or woodland areas shall include a preservation and restoration plan to be approved by the Planning Commission and City Council.

Mitigation Measures Recommended by the EIR

3.10-10 *Design and construct sewer collection facilities.* (Mitigation Implementation Responsibility: Developers, City of Roseville)

A preliminary utility plan, including sewer, has been completed. Each system will include properly sized and stubbed out facilities to serve individual projects within the Specific Plan areas. In accordance with City policy, individual projects will be required to install onsite sewer collection facilities to standards required by City ordinance. Review of these on-site facilities will be required at the Tentative Map phase prior to approval.

The alignment of sewer lines will be evaluated using 100 scale wetland preserve maps to facilitate avoidance of vernal pools and other sensitive aquatic habitat. See Sections 3.2, 3.3, 3.4, for a discussion of the natural resource effects that could result from installation of offsite sewer lines.

SOLID WASTE SETTING

Solid waste pickup within Roseville is provided by the City through the Solid Waste Division of the Department of Public Works. The City operates 12 waste collection trucks, including five automated trucks, three front-loading trucks, two rear-loading trucks, and two roll-off trucks. Waste is disposed of at the Western Placer Regional Landfill on Fiddymont Road in Placer County. This 320-acre landfill was opened in 1979, and has a remaining lifespan of 40 years.⁵ The operators of the landfill are currently negotiating to acquire additional property adjacent to the existing site with the intention of extending the useful life of the landfill.

Roseville trash disposal services do not include collection of recyclable materials. Although Roseville is exploring potential recycling programs, use of automated trucks has largely precluded curb-side pick-up of recyclable materials as a function of the existing operation. Once trash has been collected in the City, it is not subjected to any recycling measures by the Public Works Department or the operator of the regional landfill.

Current programs available to City residents require participants to deliver recyclables to collection points. Two general types of collection points are available and include: 1) drop-off receptacles such as those typically found in commercial parking lots; or 2) recycling centers where the participants may be paid for their materials. In addition, collection of recyclable materials may be available on a limited basis from youth or other organizations which utilize the activity for fund raising.

At the request of the Planning Commission in hearings on a previous EIR, a regional survey of recycling programs was conducted. The survey revealed that recycling programs exist or are being initiated in several major communities in northern California, including Marin County, Palo Alto, San Jose, and Davis. Davis Waste Disposal, the firm which provides trash collection in Davis, indicates that it is less expensive to provide trash pick-up with recycling than trash pick-up alone. Recycling allows the firm to sell recyclable material and, therefore, provide collection services

at a less expensive rate. Recycling also results in a reduced amount of material unloaded at the landfill, thus extending the life of the landfill and reducing the cost of disposal for the firm.

IMPACTS AND MITIGATION MEASURES

※ Generation of increased volumes of solid waste

Buildout of the Plan area is predicted to generate approximately 51 tons of solid waste per day and 14,543 tons annually. Residential uses will account for 14 tons per day and 5,232 tons annually; business, commercial, and other uses will contribute 37 tons per day and 9,311 tons annually (see Table 3.10-3). This volume will contribute to the need for expansion of the regional landfill and is a *significant impact*.

Solid waste collection and disposal is funded by user fees. The provision of waste disposal services will be facilitated through fees paid by future residents of the plan area. Expansion of the landfill will be funded by the standard monthly refuse charge.

Mitigation Measures

Implementation of Mitigation Measure 3.10-12 will not reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.10-11 *None identified.*

Mitigation Measures Recommended by the EIR

3.10-12 *Encourage the development of private recycling programs for commercial, professional, office, and light industrial buildings wherever feasible. (Mitigation Implementation Responsibility: Occupants)*

These users should pursue recycling efforts wherever feasible and appropriate collection is available.

SCHOOLS SETTING

Elementary and intermediate education services within the Plan area (K-8) are provided by the Roseville City School District. High school facilities are provided by the Roseville Joint Union High School District. The only high school district serving the City of Roseville is the Roseville Joint Union High School District.

By state definition, elementary schools are considered impacted when enrollments exceed 90 percent of capacity. Based on this criteria, all seven schools in the Roseville City School District are impacted.⁶ Portable units comprise 20 percent of all the K-8 classrooms in the district.

TABLE 3.10-3
SOLID WASTE GENERATION

Land Use	Units	Projected Population	Average Tons Per Day	Annual Total Tons
Residential	4,408 du ¹	9,034	14	5,232 ²
Commercial, Business, Professional Light Industrial	7,448,760 sf (171 ac) ³		37 ⁴	9,311 ⁵
Total			51	14,543

¹ du = dwelling units

² Formula used in estimating tonnage: Population x 3.17 pounds of solid waste per person per day (generation rate of Roseville Public Works Department)/2,000.

³ 2,000 lbs = 1 ton

⁴ sf = square feet. Roseville Public Works Department assumes buildings occupy a maximum of 25 percent of a site.

⁵ Formula: 1 lb/100 sf/day. Number of square feet/100/2,000.

⁶ Assumes 250 work days per year.

High school facilities are generally considered impacted when enrollments exceed 85 percent of capacity. Currently, both high schools within the Roseville Joint Union High School District are impacted, and the continuation high school is at 90 percent of capacity.⁷ Portable units represent 10 percent of the high school classrooms currently in use. Enrollment in the Roseville Joint Union High School District was 3,558 students during the 1988-89 school year. In approximately 10 years, the district is projected to increase to approximately 7,000 students.⁸

School systems have traditionally relied upon local taxes to finance growth and facility development. Adoption of Proposition 13 eliminated this fundamental funding source in California. As school districts began to suffer the consequences of limited funding, state assistance in the form of SB 201 fees, became available. AB 2926, which became effective in January 1987, enables school districts to collect fees from new developments for the construction of permanent facilities. The fees which may be collected are \$1.53 per square foot for residential buildings, \$0.25 per square foot for nonresidential buildings, and \$0.15 for industrial uses. Another funding alternative being examined by the concerned school districts is the creation of a Mello-Roos District to finance new school facilities.

IMPACTS AND MITIGATION MEASURES

✱ Increased population of school age children in impacted school districts

Each school district recognizes unique student generation rates for the various types of housing proposed in the Plan area. The predicted number of students which will be generated in each school district is presented in Table 3.10-4 and Table 3.10-5.

Based on the yield rates provided by the various school districts, development of the Plan area is predicted to generate an estimated 1,346 students attending the K-8 grades and an additional 544 students attending high school. Based on these projected student yields, two elementary schools (K-6) and one 15-acre middle school (7-8), will be needed within the Specific Plan area. The Roseville City School District assumes a student population of 600 for each elementary school and a student population of 750 for each middle school (7-8).

The Specific Plan includes a 15.5-acre intermediate school site to serve grades 7-8 and two 8-acre elementary school sites to serve grades K-6. All three of these school sites are located adjacent to proposed City parks which will provide the opportunity for joint planning and use of recreational facilities.

An increase in the population of school age children in already impacted school districts is a *potentially significant impact*.

Mitigation Measures

Implementation of Mitigation Measures 3.10-13 through 3.10-15 will reduce project impacts to a less-than-significant level.

TABLE 3.10-4**K-8 ENROLLMENT PROJECTION AT FULL BUILDOUT
ROSEVILLE CITY SCHOOL DISTRICT**

Land Use	Units	Ratio	Yield Rates	Students
R-3 to R-5	1,340	100%	0.5186	694
R-6 to R-8	546	50%	0.5186	141
		50%	0.2611	71
R-10 to R-12	90	30%	0.2611	7
		70%	0.1740	10
R-20	<u>2,432</u>	100%	0.1740	<u>423</u>
TOTAL	<u>4,408</u>			<u>1,346</u>

TABLE 3.10-5**9-12 STUDENT ENROLLMENT PROJECTION AT FULL BUILDOUT
ROSEVILLE CITY SCHOOL DISTRICT**

Land Use	Units	Ratio	Yield Rates	Students
R-3	64	100%	0.2362	15
R-5	1,276	100%	0.2362	301
R-6	366	50%	0.2362	43
		50%	0.1756	32
R-8	180	50%	0.2362	21
		50%	0.1756	16
R-12	90	30%	0.1756	5
		70%	0.0445	3
R-20	<u>2,432</u>	100%	0.0445	<u>108</u>
TOTAL	<u>4,408</u>			<u>544</u>

Mitigation Measures Identified in the Specific Plan

3.10-13 *Adhere to policies identified in the Specific Plan.*

- 7.12.2 Schools, parks, and libraries shall be linked to the pedestrian path/sidewalk system.
- 7.12.3 A continuation high school shall be located during future planning for the north side of the Highway 65 Bypass.
- 7.12.11 Substantial setbacks and landscape buffering shall be provided within school sites abutting other land uses unless such adjoining uses provide such buffers.

Mitigation Measures Recommended by the EIR

3.10-14 *Investigate specific funding mechanisms to finance construction of onsite school facilities. (Mitigation Implementation Responsibility: City of Roseville)*

3.10-15 *Provide for a school site in the urban reserve area for a continuation high school. (Mitigation Implementation Responsibility: City of Roseville)*

The Roseville Joint Union High School has indicated that an additional continuation high school is necessary and could be located within the Plan area. If the school is needed before the urban reserve area is scheduled to be developed, an alternate location within the Plan area will be negotiated.

PARKS AND RECREATION SETTING

Regionally, the Sacramento metropolitan area is situated between the Pacific Coast and the Sierra Nevada, both of which offer extensive recreation opportunities within easy driving distance. Exceptional local recreational opportunities are afforded by the Folsom Lake State Recreation Area, located approximately five miles east of the City, and the American River Corridor, located immediately south of the City in Sacramento County. In addition to programs sponsored by Roseville, the surrounding communities support numerous other recreational opportunities.

The City General Plan established a park acreage standard of nine acres per 1,000 residents. Ideally, the Roseville General Plan recommends that this acreage be distributed into three basic types of parks: neighborhood, community, and citywide. Neighborhood parks generally include such facilities as apparatus areas, paved areas for court games, turf areas, picnic areas, and play lots for preschoolers. Community parks typically include sports fields, paved areas for court games, picnic areas, special events areas, and natural areas. A citywide park may include such diverse facilities as a large picnic area, boating, swimming, athletic fields, play areas, trails, and natural area.

In addition to traditional parks situated throughout the City, Roseville is in the process of establishing a citywide bicycle/pedestrian pathway system. The pathway system is intended to provide additional recreation opportunities, as well as providing a practical alternative to motor vehicle transportation.

The Roseville Department of Parks and Recreation also maintains natural preserve areas. These areas can be used for recreational purposes, such as hiking, wildlife observation, and photography. They are not for active recreation use requiring playing fields or other such facilities.

Roseville Department of Parks and Recreation recreational facility requirements are as follows:⁹

<u>Facility</u>	<u>Population Standard</u>	
Regulation Baseball	1 per	6,000
Little League Field	1 per	2,500
Bobby Sox Field	1 per	4,000
Adult Softball	1 per	3,000
Regulation Soccer	1 per	2,500
Youth Soccer	1 per	4,500
Swimming Pool	1 per	20,000
Tennis Courts	1 per	2,000
Basketball		
Indoor	1 per	8,000
Outdoor	1 per	1,000
Play Lots	1 per	1,000
Picnic Facilities	1 per	1,000

IMPACTS AND MITIGATION MEASURES

⌘ Increased demand for parkland and facilities

Residential projects within the Plan area will result in an estimated population of 9,034 persons. Based on the City standard of nine acres per 1,000 population, approximately 81 acres of parkland will be required to fulfill the park requirement in the Plan area. Additional parks, open space, and a pedestrian pathway system in the Roseville area could generate the need for an additional park ranger to patrol these areas.

The total amount of parkland (excluding the wetland mitigation area) within the Specific Plan is 115 acres. Of this acreage, 66.1 acres are available for active recreation facilities.

Development of the Plan area will generate the need for active recreation facilities in the parks. The Roseville Department of Parks and Recreation bases recreational facilities on projected population figures. The facilities required, based on population, and the number provided by the NCRSP are as follows:

Facility	Number Required by Roseville Department of Parks and Recreation for the NCRSP
Baseball	2
Little League	4
Bobby Sox	3
Softball	4
Regulation Soccer	4
Youth Soccer	3
Swimming Pool	1
Tennis Courts	7
Basketball Courts (Outdoors)	9
Basketball Court (Indoor)	1
Playlots	9
Picnic Facilities	9

As the Plan provides the required number of recreation facilities, the impact is *potentially significant*.

The Plan includes development of a bicycle/pedestrian pathway network consisting of three types of pathways. Primary pathways include Class I bike paths along certain major arterials and along the floodway of Antelope Creek. The system, when completed, will connect to the citywide bicycle network on Washington Boulevard, south of Junction Boulevard, on Pleasant Grove Boulevard, on Harding Boulevard, and on Roseville Parkway.

To support the primary pathways, a Class II lane system is proposed throughout the Plan area within the right-of-way of collector streets and arterials. All local streets within residential neighborhoods will serve as Class III on-street bikeways. This system will eventually serve joggers, recreational bicyclists, and commuters. A detailed description of this system is presented in the Specific Plan.

In addition to the proposed park sites, park preserve sites totalling 52.5 acres have been designated, including a 33-acre vernal pool preserve. These areas provide space for recreational opportunities different than the sport events which will occur in the park sites. Undeveloped park preserve sites provide a space for activities such as observing nature or relaxing or walking with friends and family within a quiet and natural setting. Both developed and undeveloped park sites are required within a community to support a wide range of recreational activity.

Mitigation Measures

Implementation of Mitigation Measures 3.10-16 through 3.10-17 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.10-16 Adhere to policies identified in the Specific Plan.

- 7.12.4 Wherever possible, public open space and parks shall be located adjacent to school sites. The school districts are encouraged to enter into joint-use agreements with the City Parks and Recreation Department to maximize public use of facilities and avoid duplication of services.
- 7.12.5 Parks shall be of a size and contain apparatus and features consistent with the recreation needs of nearby residents.
- 7.12.6 Native, drought tolerant, trees and shrubs shall be incorporated into parks and landscape design where feasible.
- 7.12.7 Parks shall be designed to minimize maintenance requirements.
- 7.12.8 Parks shall be designed to facilitate surveillance by adjoining residents, security services and police.
- 7.12.9 The park areas identified in this Plan shall be dedicated to the City as specified under the terms of the Development Agreement.
- 7.12.10 The wetland preserves identified in this Plan shall be maintained as specified under the terms of the Development Agreement.

3.10-17 Dedication of parkland by individual developers.

Mitigation Measures Recommended in the EIR

3.10-18 No additional measures are required.

LAW ENFORCEMENT SETTING

Law enforcement services are currently provided to the Plan area by the Roseville Police Department. Presently, the Police Department employs 48 sworn officers providing a ratio of approximately 1.28 officers per 1,000 population.¹⁰ The Roseville Police Department currently bases the officer/population ratio on residential population only. As commercial uses develop, the ratio factors may be changed. The Department received 12,000 service calls in 1988. In emergency situations, the Police Department can respond in less than three minutes.

The Police Department anticipates expanding to larger quarters in the downtown area in the near future. Development of substations is not anticipated to be necessary to serve the City at this time.

IMPACTS AND MITIGATION MEASURES

⌘ Increased demand for law enforcement services

Development will require an increase in the level of law enforcement services provided to the Plan area. To maintain the present level of service, approximately 12 additional officers will be required by development in the Plan area. This is a *potentially significant impact*.

As discussed in the Fiscal section of this report, municipal services, including police, are funded through tax revenues. The mechanism for collection and distribution of taxes is already in place, and as development occurs in the Plan area, taxes will be collected to finance expansion of City services.

Mitigation Measures

Implementation of Mitigation Measures 3.10-19 through 3.10-22 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.10-19 *None identified.*

Mitigation Measures Recommended by EIR

3.10-20 *Encourage security features. (Mitigation Implementation Responsibility: Developers)*

To the extent possible, the developers will encourage the use of high-quality door and window hardware for residential construction within the Plan area.

It is anticipated that alarm systems will be included in many, although not all, homes at the time of their construction and that some will be installed by homeowners. Similarly, it is common practice for commercial establishments to use alarm systems and/or the services of private security firms.

3.10-21 *Provide for early Police Department review of individual project plans. (Mitigation Implementation Responsibility: Police Department)*

In accordance with City policy, all projects will be reviewed by the Police Department to identify safety and crime prevention measures.

3.10-22 *Implement "neighborhood watch" programs within the Specific Plan area. (Mitigation Implementation Responsibility: Police Department)*

FIRE PROTECTION SETTING

Fire protection services are provided by the Roseville Fire Department. The Department currently operates three fire stations and maintains two firefighters per 1,000 people. In 1988, it received 2,827 alarms.¹¹ Presently, the Fire Department maintains three engines (one at each station), a ladder truck, a rescue vehicle, and two trucks equipped to fight grass fires.

In addition to the existing facilities, a new station in the Southeast Roseville Specific Plan area is anticipated to be operational by July 1990, and a new station in the Northeast Specific Plan area is proposed to be constructed as that area develops.

IMPACTS AND MITIGATION MEASURES

■ Increased demand for fire protection and emergency services

Development will generate the need for increased fire and emergency services to the Plan area. Buildout of the Plan area will require an additional 18 firefighters. This is a *potentially significant impact*.

A new station is currently planned and will be located on parcel 61 within the Plan area. Equipment and staff needs will be in accordance with City standards. The response time into the Plan area would be within the staff-recommended four minutes.

As discussed in the Fiscal section of this report, municipal services, including fire and emergency services, are funded through tax revenues. The mechanism for collection and distribution of taxes is already in place, and as development occurs in the Plan area, taxes will be assessed to finance expansion of City services.

Mitigation Measures

Implementation of Mitigation Measure 3.10-24 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.10-23 *None identified.*

Mitigation Measures Recommended by the EIR

3.10-24 *Provide for early review by the Fire Department. (Mitigation Implementation Responsibility: Fire Department)*

In accordance with City policy, all projects will be constructed to meet applicable fire codes. All projects will be reviewed by the Fire Department, and hydrants will be provided at the time of project development per approval by the Fire Department. Developers should submit construction schedule to the Fire Department to allow for coordination of fire protection during and after project construction.

LIBRARIES SETTING

Roseville supports a public library system which serves the City as well as surrounding communities. The main library is located at the intersection of Royer and Taylor Streets in downtown Roseville. For the convenience of patrons residing south of I-80, a station library is operated on Coloma Way in the southeastern sector of the City.

In addition to the services offered at the library facilities, the library system provides regular delivery and pickup of materials to convalescent homes in the Roseville vicinity and a computer hookup facility at each of the local high schools. The Roseville Library system participates in the Interlibrary Loan and Universal Borrowing programs.

Though the current library facilities are estimated to be capable of providing optimal service to a population of 30,000 persons, there are approximately 38,000 cardholders.¹² As development continues throughout the City and surrounding area, the need for additional library services is expected to increase. For planning use only, the library system estimates that a branch library would be required to serve each 15,000 to 20,000 new residents in the City. Consequently, branch libraries are proposed in the Southeast, North Central, and Northwest Roseville Specific Plan areas. The library in the Southeast Specific Plan area is scheduled to be constructed in 1989, at which time the station library on Coloma Way will close. The Northwest Specific Plan also has a site for a library which will be constructed as the area develops.

IMPACTS AND MITIGATION MEASURES

※ Generate demand for additional library facilities

A site for a branch library is located within the 21.6-acre community park on Roseville Parkway. This facility will be capable of providing adequate library services to the population in the planning area and, therefore, the impact is considered *less than significant*.

Mitigation Measures

Mitigation Measures Identified by the Specific Plan

3.10-25 *Adhere to policies identified in the Specific Plan in Section 7.12.*

7.12.2 Schools, parks, and libraries shall be linked to the pedestrian path/sidewalk system.

Mitigation Measures Recommended by the EIR

3.10-26 *No additional mitigation measures are required.*

NATURAL GAS SETTING

Pacific Gas & Electric Company (PG&E) is the supplier of natural gas service within the City. Natural gas service will be provided by PG&E in accordance with the rules and tariffs of the California Public Utility Commission (PUC).

PG&E has an existing network of gas transmission and distribution pipelines and regulator stations in the Plan area.

IMPACTS AND MITIGATION MEASURES

⌘ **Increased demand for natural gas**

Development of the Plan area will create a substantial demand for natural gas. New development in the area would require additions to the existing gas transmission facilities system, but not to an extent that PG&E would have a problem in providing service. Although PG&E has indicated that cumulative growth in the Roseville and Northern Sacramento area can be served with existing and additional transmission lines, the increased demand for natural gas could be considered a *potentially significant impact*.

Mitigation Measures

Implementation of Mitigation Measures 3.10-27 through 3.10-30 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.10-27 *Adhere to policies identified in the Specific Plan in Section 6.6.*

- 6.6.1 As a method of reducing solar gain which may increase interior air conditioning requirements trees shall be planted and maintained in all nonresidential parking areas to ensure that, within 15 years of planting, at least 50 percent of the parking area is shaded at mid-day during the summer season.
- 6.6.2 Throughout the Plan Area deciduous trees, which aid summer cooling and allow solar gain for winter heating, shall be included and appropriately sited.
- 6.6.4 Incorporate energy conservation measures into development design.

Mitigation Measures Recommended by the EIR

3.10-28 *Consider existing utility uses when determining zoning and approving projects in areas adjacent to existing PG&E facilities. (Mitigation Implementation Responsibility: City of Roseville)*

According to PG&E, load growth of the projected magnitude can be easily handled by their normal distribution main extensions and reinforcements and possible additional regulator stations.

Transmission main capabilities are adequate to serve the projected additional load. Gas services will be supplied in accordance with PUC Rules 15 and 16.

Although PG&E's long-range plans provide for availability of gas service to accommodate increased demand, delivery of gas service to any particular development must be reviewed by PG&E to determine anticipated load for the proposed land use.

3.10-29 *Developers will be required to provide adequate easements for all utility facilities within their developments. (Mitigation Implementation Responsibility: City of Roseville)*

In addition to gas distribution lines, these may include other facilities, such as gas transmission lines and regulator stations. Zoning ordinances and deed or subdivision restrictions must not preclude utility facilities from any zoning district or development.

3.10-30 *Incorporate conservation measures into development designs. (Mitigation Implementation Responsibility: Developers, City of Roseville)*

Construction of well-insulated homes pursuant to Title 24, with energy efficient air conditioning/heating systems, will reduce the total amount of energy consumed.

Developers should be encouraged to incorporate passive solar measures in their homes whenever feasible, and to provide direction to home buyers interested in incorporating more extensive passive systems into new homes.

Public utilities should be encouraged to provide programs for conservation of electricity, gas, and water. Such programs typically include low-interest financing for energy-conserving home improvements.

ELECTRIC SERVICE SETTING

The Roseville Electric Utility Department will provide electric services to the Plan area. The City receives 69 megawatts (MW) of power through a federal allocation from the Western Area Power Administration (WAPA). This hydroelectric power is generated by numerous facilities located in California, which are part of the Central Valley Project. The second major source of electrical power for the City is through the Northern California Power Agency (NCPA), of which Roseville is one of 13 members. Energy from WAPA is generally less expensive than power purchased from NCPA. NCPA has developed several new sources of power, namely, two geothermal facilities and five combustion turbine generating facilities. NCPA is currently constructing a new hydroelectric facility in Calaveras County on the Stanislaus River, which is anticipated to be in operational by February, 1990.¹³ NCPA is investigating the feasibility of numerous additional projects; however, most of these are still in the preliminary stages of planning. NCPA also purchases bulk

power from other sources, such as the Bonneville Power Administration. As a back-up source, the City has an existing contract with PG&E to allow purchase of supplemental electrical power.

As growth continues, the City will eventually fully use its existing federal allocation from WAPA. Heavier use and additional growth will, however, permit fuller utilization of the allocation in the cooler months and will increase the City's entitlement to low cost energy from WAPA.

In anticipation of increasing demand for electricity, the City has made a commitment to load management and conservation programs for both new and existing customers. In addition to conserving resources, these programs are anticipated to maintain the ability to provide relatively inexpensive power to Roseville residents.

Currently, the majority of federal power utilized by the City is received at the Berry Street receiving station. This power is distributed via a 60-kilovolt (kV) system to numerous distribution substations throughout the City. The current capacity of this system is approximately 130 MW, including the Calaveras facility scheduled to be operational in 1990. To fulfill the projected power needs of buildout of the General Plan, approximately six additional substations each with a capacity of 50 MW is required. Two of these substations are under construction and four are in the planning stage. These substations will provide services for the specific area where they are located. A second receiving station will be required to increase reliability and provide a backup for the existing Berry Street receiving station. The Roseville Electric Utility Department has indicated that this station should be located in the northwestern part of the City.

IMPACTS AND MITIGATION MEASURES

■ Increased demand for, and consumption of, electrical power

The City has contracts in place which are expected to provide adequate sources of electrical power through year 1991, including service to proposed development in the Specific Plan areas. The Roseville Electric Utility Department is confident that the electrical needs of the City can be met well beyond year 1991; however, the contracts and mechanisms necessary to guarantee this service have not been completely established at this time.

Development within the Plan area is predicted to increase the electrical load of the City by up to 92.9 MW,¹⁴ depending on the type of light industry which locates within the Plan area. This figure includes future uses in the urban reserve areas. In conjunction with this increased demand for power, there will be a need for construction of additional transmission facilities and substations to serve the area. This is a *potentially significant impact*.

The present policy in the City is that costs of increased power supply are shared by all rate payers, while costs to install added distribution facilities are paid for by specific users prior to development. In accordance with City policy, the proponents of the North Central Roseville Specific Plan will bear the costs of installation of required distribution facilities.

A half-acre site for use as a distribution substation (parcel 62) is provided within the Plan. While this substation alone will not be able to supply sufficient power to the Plan area, substations in the surrounding area will provide additional power needed to serve the area. Other transmission line easements will be provided as individual projects are proposed.

Mitigation Measures

Implementation of Mitigation Measures 3.10-31 and 3.10-32 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.10-31 *Adhere to policies identified in the Specific Plan in Section 7.12.*

7.12.15 All electrical, telephone and cable services to be placed underground.

7.12.19 The electrical substation shall be screened by a masonry wall and landscaping

Mitigation Measures Recommended by the EIR

3.10-32 *Incorporate energy conservation measures into development design. (Mitigation Implementation Responsibility: Developers, City of Roseville)*

Construction of well-insulated quality homes with energy efficient air conditioning/heating systems will reduce the total amount of energy consumed.

Developers should be encouraged to incorporate passive solar measures in their homes whenever feasible, and to provide direction to home buyers interested in incorporating more extensive passive systems into new homes.

Public utilities should be encouraged to provide programs for conservation of electricity, gas, and water. Such programs typically include low-interest financing for energy conservation home improvements.

TELEPHONE SERVICE SETTING

Roseville Telephone Company will provide service to the Plan area in accordance with their filed tariffs.

IMPACTS AND MITIGATION MEASURES

❖ Increased demand for telephone service

Infrastructure will be constructed in conjunction with development of individual projects. No unusual problems are anticipated in providing telephone service to this area; however, there could be line extension charges, depending upon actual developmental phasing. Public utility easements will be required, as will additional rights-of-way for installation of telephone equipment.

Development of the Plan area will require the installation of facilities to provide telephone service to future residents of the Plan area. This is a *potentially significant impact*.

Mitigation Measures

Implementation of Mitigation Measures 3.10-33 and 3.10-34 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.10-33 *Adhere to policies identified in the Specific Plan in Section 7.12.*

7.12.15 All electrical, telephone and cable services to be placed underground.

Mitigation Measures Recommended by the EIR

3.10-34 *Coordinate facility planning with the Roseville Telephone Company. (Mitigation Implementation Responsibility: City of Roseville Planning Department, and Public Works Department)*

In compliance with PUC regulations, proponents of the Specific Plan will cooperate with the Roseville Telephone Company to develop necessary facilities for the provision of service to the Plan area. Easements for telephone line installation will be identified on tentative maps, as projects are proposed.

PUBLIC SERVICES ENDNOTES

1 Derrick Whitehead, Roseville Department of Public Works, personal communication, April 25, 1989.

2 Derrick Whitehead, Roseville Department of Public Works, personal communication, May 10, 1989.

3 Larry Buckle, Roseville Department of Public Works, personal communication, May 31, 1989.

4 Derrick Whitehead, Roseville, Department of Public Works, personal communication, May 9, 1989.

5 Terry Bosik, Roseville Department of Public Works, personal communication, May 9, 1989.

6 Debbie Bettencourt, Roseville City Schools Business Department, May 10, 1989.

7 Jim Bush, Facilities Planner, Roseville City Schools, personal communication, May 10, 1989.

8 Ibid.

9 Ken Bailey, Roseville Department of Parks and Recreation, personal communication, May 12, 1989.

10 Captain Boyles, Roseville Police Department, personal communication, May 9, 1989.

11 Fire Marshall White, Roseville Fire Department, personal communication, April 25, 1989.

12 Sue Nickerson, Roseville Library, personal communication, May 10, 1989.

13 Mike Brozo, Energy Resources Manager, Roseville Electric Department, personal communication, May 10, 1989.

14 Charles Cunha, Roseville Engineering Department, personal communication, May 16, 1989.

3.11 ARCHAEOLOGY AND HISTORY

SETTING

Introduction

Discovery and settlement of the Sacramento Valley Region of California is one of the most colorful and thoroughly researched histories of any in the state. A large number of archaeological surveys have been conducted in recent years throughout the surrounding area in Placer and Sacramento Counties. The following is a summarization of the findings of an archaeological survey performed for this project by Foothill Archaeological Services and appended to this report.

History

Native American History

Prior to exploration by Spanish explorers and American trappers, the region was inhabited by the Valley Nisenan. The term Nisenan ("of us" or "from our side") is applied to the southern Maidu Indians who made their home along the drainages of the American, Yuba, and Bear Rivers, and the lower reaches of the Feather River. Nisenan population prior to Euro-American contact is thought to have numbered about 9,000 individuals who were scattered throughout the region in small "triblet" groups. The Nisenan economy relied on gathering acorns, grass seeds, and roots along with the hunting of deer, elk, rabbits, and small game. Fishing techniques employed nets, traps, and soaproot poison. Nisenan food technology and seasonal activities are well established from ethnographic accounts, but place and village names are poorly known. It is known that two principal types of habitation sites existed, seasonal camps which were utilized for food gathering, and permanent villages.

Three permanent villages are known to have existed in the area. These include Ba mu ma where the town of Lincoln now stands, Pit chi ku where Roseville is located, and Ba ka cha at Rocklin. In addition, the Evelyn site which was located where Roseville now stands along Dry Creek, is thought to be a major ancient village and cemetery area.

The Nisenan culture was untouched by Euro-American influence until the beginning of the 19th century.

Recent History

The first historical exploration of the areas is credited to the Spanish under Gabriel Moraga. The Moraga expedition visited the area between 1806 and 1808 for the purpose of identifying mission sites, searching for runaway Indians, and to punish

those Indians found to be hostile to Spanish rule. There is no record of Nisenan from this vicinity being removed to the missions, but the Nisenan did accept runaways from Spanish missions.

The next recorded visitation to the area is credited to Jedediah Smith and his party of fur trappers who, with the approval of the Nisenan, established trapping camps in the area during the years of 1827 and 1828.

The most devastating blow to the Nisenan culture came in the form of a malaria epidemic in 1833. Up to 90 percent of the original population may have perished, and those who survived could not return to their traditional way of life.

During the 1850s and 1860s, the discovery of gold had brought over 10,000 people to Placer County. Secret Ravine and Auburn Ravine yielded easy riches at first, but before long, the gold played out and people were forced to move on or shift to other means of livelihood, including farming and ranching.

In 1857, George R. Whitney purchased 160 acres north of the present Plan site and by 1867, his Spring Valley Ranch had grown to 13,000 acres. This was only a small part of the estimated 120,000 acres in the Central Valley which was at one time under his control. The most remarkable historical remains of the Spring Valley Ranch within the Plan site today are the rock walls which may have been built by Chinese laborers.

Previous Archaeological Investigations

Local Reconnaissance

Environmental impact studies and early archaeological research near the project area and on lands surrounding it have produced a basic outline of Roseville prehistory.

A major study by Palumbo (1963) forms the basis for chronological assignment of sites within the region. In her study of Dry Creek, Strap and Miners Ravines, and Linda Creek, Palumbo documented the rich deposits of ancient villages dating to a period as early as 500 B.C. Two site types were recognized, permanent villages and seasonal campsites. This is interpreted to reflect seasonal migration to find food in the Roseville area.

Roop (1978) has identified surface artifact concentrations surrounding deeper vernal pools on the dry rolling hills north of the study area and interprets these as food collecting and processing stations.

Immediately to the west of the Plan area, across Highway 65, a major survey was conducted by Foster and Foster in 1981 for the Roseville-Rocklin West Sewer Assessment District. A series of alignments were covered and a total of six Native American and two historic sites were recorded. Other features and isolated artifacts were also found.

David Chavez (1982) conducted a major reconnaissance for the acreage immediately north of the North Central Plan area. His detailed report summarizes historic and archaeological findings along the upper reaches of Pleasant Grove Creek including several major village sites, with mortar stations and recognizable midden, and recorded remains from the Chinese labor settlement associated with the Spring Valley Ranch headquarters.

Basgall (1976) recorded a large archaeological deposit on the south bank of Dry Creek west of Riverside Avenue. This site is unusual in that it features abundant milling stones and metate fragments on the ground surface. These may indicate an earlier time period or non-Nisenan presence in the Roseville area.

Site Reconnaissance

Within the North Central Plan area itself, four previous archaeological surveys have been carried out, in addition to some minor excavation work associated with the Highway 65 Bypass construction corridor. The following is a summary of these efforts.

Ann S. Peak & Associates, 1979: This work consists of a brief survey along the SMUD Project C, Phase I 230-kV transmission line across Placer County which crosses the North Central Plan area in the southern boundary. No cultural materials were found during this survey.

Billy J. Peck and Dorothy C. Peeler, 1979: This work consisted of a systematic survey of 160 acres bordering the boundary of the Plan area. No prehistoric cultural materials were identified, but the authors record east-west and north-south rock wall alignments on the boundary of the project. A series of wooden fence posts are imbedded in the walls, and they contain square nails dating to the late 19th century. The authors attribute rock wall construction to Chinese laborers working at the Spring Valley Ranch between 1875 and 1880.

Billy J. Peck, 1980: This survey was carried out along the proposed Highway 65 Bypass corridor for 3.2 miles of its length. Other than more evidence of rock walls, and a rock ring, no new cultural materials were identified. One previously recorded site which consists of a bedrock mortar station with 21 pits on four granite outcroppings was refound. No midden deposit could be detected; however, it may have been disturbed by mining activity. This previously recorded site lies outside the Plan area.

Peck recommended a further assessment of the rock walls be done by a historian, and this was accomplished by McGuire (1980). She cautioned that immigrants other than Chinese also built unmortared rock walls in post-Gold rush California. Italians, Portuguese, and Anglo farmers have all contributed to this tradition.

John W. Foster and Daniel G. Foster, 1982: This survey covered portions of the 1,957-acre Diamond Oaks North project. It is the most intensive study to be conducted within the Plan area. Somewhat over one-half of the total acreage was physically inspected. A total of five archaeological sites, seven historic fencelines, and 16 isolated finds were discovered during the study. Nearly all sites are attributable to the utilization of rock, the most prevalent natural resource in the region. The sites are characterized by cupules and mortar pits in larger boulders with an occasional scatter of lithic debris.

Archaeological Reconnaissance for the NCRSP

For the purpose of this study, an effort was made to complete the archaeological inventory for the Plan area. Examination of the areas thought most sensitive for cultural resource was based on the known pattern of site distribution in the Roseville area. Two variables, rock outcrops and water, seem to be most important in predicting the presence of Native American sites.

Standard methods were employed. The area was systematically traversed for evidence of cultural resources. All sign of archaeological remains such as ground and chipped stone tools, bedrock mortars, rock art, prehistoric midden accumulation, historic rock alignments, and foundations were closely inspected. Over much of the area, a high grass cover made visibility difficult. All cleared ground surfaces such as roads, stream cuts and rodent burrows were checked.

No new sites were discovered in the survey. Several previously recorded rock walls were extended beyond their previous bounds, but no new features were located. Between Antelope Creek and the Southern Pacific Railroad line there are two simple wood-frame ranch house ruins. These were noted but not recorded in detail. Both appear to date from the 1940s and have considerable ranch debris scattered about.

Cultural Resources Recorded in the Plan Area

The following is a short summary description and evaluation of all known sites within the Plan area. Not all have been assigned permanent trinomial designations at the present time by the North Central Information Center of the California Archaeological Inventory.

Site 1

Site 1 consists of a dispersed bedrock milling station with a total of six pits at three different loci. A grove of blue oaks and valley oaks are centrally located to the mortar pits. Surrounding the whole area is a light scatter of surface artifacts including manos, anvil stones, a possible metate fragment, a pestle, a gaming stone, and a hammerstone. No points, chipped stone or faunal remains were detected. No midden deposit was observed.

This site is typical of the dispersed food processing camps in the Roseville area. They stubbornly defy standard dating methods in that they contain no apparent midden deposits with datable organic debris. If the mano and metate complex was not employed by the Nisenan as claimed, however, then this site may have considerable antiquity. It could represent a pre-Nisenan era or a subsistence technology not remembered by the time of ethnographic contact.

Site 2

The site is comprised of two shallow cupule depressions on a large boulder. No artifacts or midden deposit is in evidence. The function of these pits remains problematic. They may be rock art features or, more likely, incipient mortars used for initial stages of acorn processing. Until similar sites are found with artifacts in association, no pronouncement of its function or significance is possible. This site is situated in an open grassland removed from any oaks.

Site 3

This site consists of a small bedrock milling station with three mortars on a bedrock exposure and one shallow incipient mortar on a nearby boulder. The cluster of three mortars is located in the bed of a small ephemeral drainage. While no artifacts were identified by the original recorders, test excavations produced a single obsidian pressure flake. No other cultural materials were identified, but a temporal assignment of A.D. 600-800 was suggested.

Site 4

This site is another small food processing station. The site consists of four deep mortars on a bedrock exposure and four shallow mortars on three separate boulders nearby. The surrounding area is an open treeless plain. Since no trees occupy the area now, perhaps this site reflects food processing activities where vernal pools provide foodstuffs or water. One cortex-backed chopping tool and one mano fragment are recorded in association with the mortars.

Site 5

The site is characterized by three bedrock mortars on a flat exposure next to a small drainage and four "cupule depressions" on a smaller boulder some 20 meters distant. The cupules may not be related to rock art expression, but to a stage of acorn or other plant food processing. There may be some stage in which it is better to use small pits for pounding before shifting to deeper ones.

Site 6

The site consists of two mortars in a large boulder. No artifacts are described in association, and apparently no midden deposit could be found.

Site 7

This site is a small mound and associated artifact scatter. Surface collections produced basalt and silicate flakes, basalt, and silicate flake tools, bifacially worn manos, and one projectile point of schist. Only one cultural item was recovered which is described as a "silicate flake tool" of unknown function.

IMPACTS AND MITIGATION MEASURES

⌘ Potential loss or damage to historical resources

Those portions of the site identified by the archaeologists as having been subject to prehistoric occupation or activities were surveyed. This work has recorded seven sites, most being associated with food processing activity. Two of the seven (Nos. 4 and 7) have important cultural deposits and may have buried artifact concentrations. Others defy complete understanding in that they contain shallow "cupules" that may have a ceremonial function or perhaps represent a stage in food processing; however, their prehistoric use has yet to be definitely established. If the mano/metate complex is present, it may offer a glimpse of an earlier episode of Roseville prehistory.

In spite of significant archaeological efforts, there are major unresolved questions about prehistoric life in the Roseville area, and since the traditional Nisenan culture was so thoroughly extinguished by the turn of the century, the only hope for preserving this information will rely on archaeological techniques. It is incumbent on those who have inherited the land to keep in mind that they hold the fate of an extinct society in their hands. Any new sites which can be found will add to the growing knowledge about Roseville's past. This will add to California's pride in its "roots" and heritage.

The loss of cultural resources is a *potentially significant impact*.

Mitigation Measures

Implementation of Mitigation Measures 3.11-1 through 3.11-3 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.11-1 *Adhere to Policy 6.7.1, which suggests that projects incorporate portions of rock walls into landscape designs for parcels 84 and 93 where possible, based on evaluations completed during site design and review.*

Historic rock walls should be considered valuable resources in land use planning and preservation should be encouraged. As the rock walls may not satisfy the criteria for National Historic Register status,

preservation of the walls in total is not necessary. However, preservation of representative samples of the walls will serve to preserve the historic nature of the area.

In conjunction with retaining the walls where feasible, an interpretive exhibit could be established. This could include maps identifying the location of the walls, photo documentation of the walls before site construction, and a painting of the walls as they may have existed 100 years ago.

Mitigation Measures Recommended by the EIR

- 3.11-2 *Protect known prehistoric sites through capping or excavation unless further study at the time of application deems this unnecessary or inappropriate. (Mitigation Implementation Responsibility: City of Roseville, Developers)*

Complete protection of a site could be accomplished by avoiding the site. "Capping" a site would protect the site from disturbance so that as new buildings are constructed, the site remains intact. Excavation would remove any artifacts before construction on the site occurred.

At the time that specific development plans are formulated, planners should bring in a qualified archaeological consultant to assist. The site boundaries should be flagged, and every effort made to avoid disturbing artifacts or features. If impacts prove to be unavoidable, there should be a mitigation effort in advance of construction. This work should be designed to collect threatened artifacts and perform excavations at midden deposits which may be affected.

- 3.11-3 *In the event any historic surface or subsurface archaeological features or deposits are uncovered during construction, work in that immediate vicinity will halt immediately and a qualified archaeologist will be contacted for determination of resource significance. (Mitigation Implementation Responsibility: City of Roseville, Developers)*

In addition, Native American groups in the area should also be contacted.

Resources such as grinding stones and mano fragments will be donated to the Maidu Park Cultural Center.

3.12 VISUAL AND AESTHETIC RESOURCES

Introduction

The purposes of the visual resource analysis are to describe the landscape within the study area, identify important elements of the landscape, determine elements that are valuable to the viewing public, and assess the sensitivity of the landscape to visual changes that may result from implementing the proposed Plan.

A visual survey including site reconnaissance and photos was conducted to assess the quality of views from the Plan area, the character of the adjacent land uses, and the quality of views into the property from potentially affected surrounding areas. This survey and the definable visual criteria discussed throughout the section form the basis for evaluating the potential visual intrusiveness, loss of visual character, and degree of visual compatibility that the proposed Plan buildout would have.

The Photo Inventory Map (Figure 3.12-1) shows general locations and directions from which site reconnaissance photographs were taken. The photographs (Figures 3.12-2 through 3.12-4) represent the visual resources found within the Plan area.

Regional

The Plan area is located at the transition between the Central Valley and the lower foothills of the Sierra Nevada Mountains. The area is generally open, rolling grasslands. The topography ranges from level areas to the steep slopes of the Antelope Creek area.

Plan Area

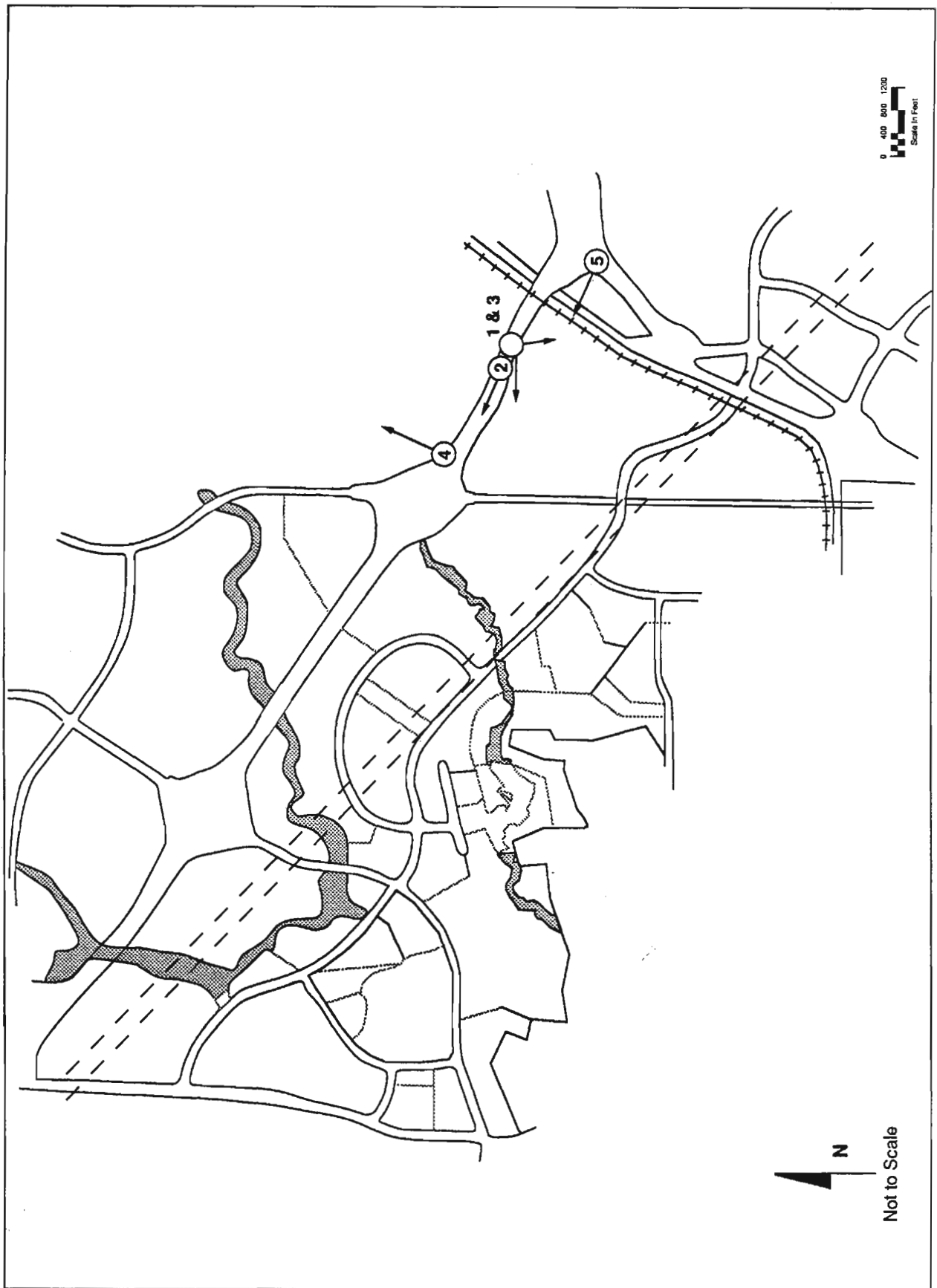
Onsite Visual Resources/Quality

The Plan area is undeveloped. The visual elements are therefore made up predominantly of variations in landform, water, and vegetation.

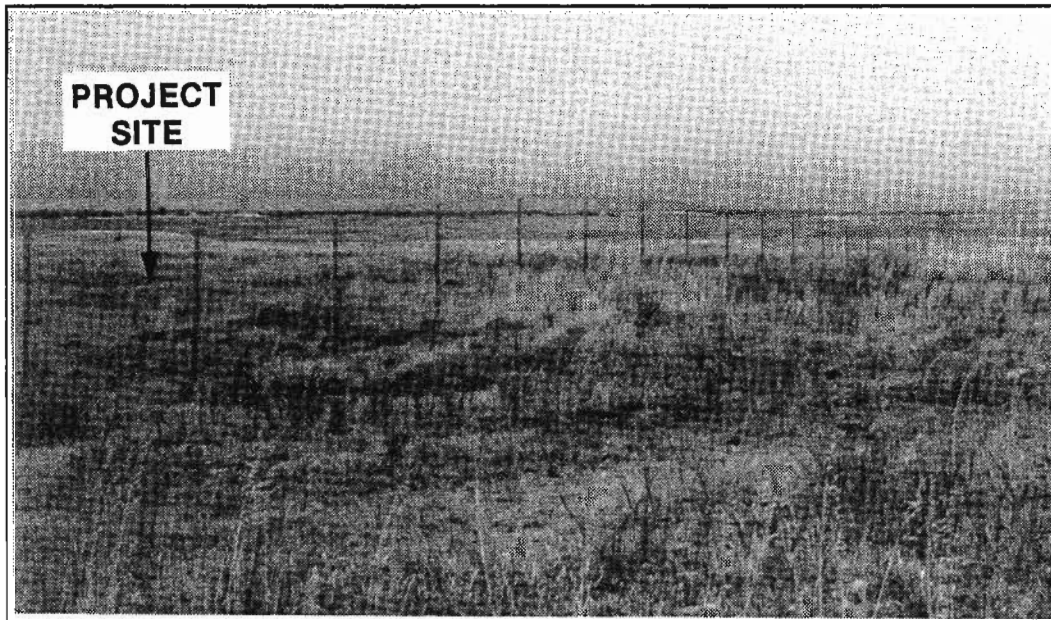
The man-made elements existing on the site include: the Highway 65 Bypass dividing the site in a northwest to southeast direction, electrical transmission lines paralleling the Bypass, and an electrical substation near the alignment of Harding Boulevard. Remnants of 19th Century rock walls occur in the central portion of the site (see Archaeology and History section).

Figure 3.12-1

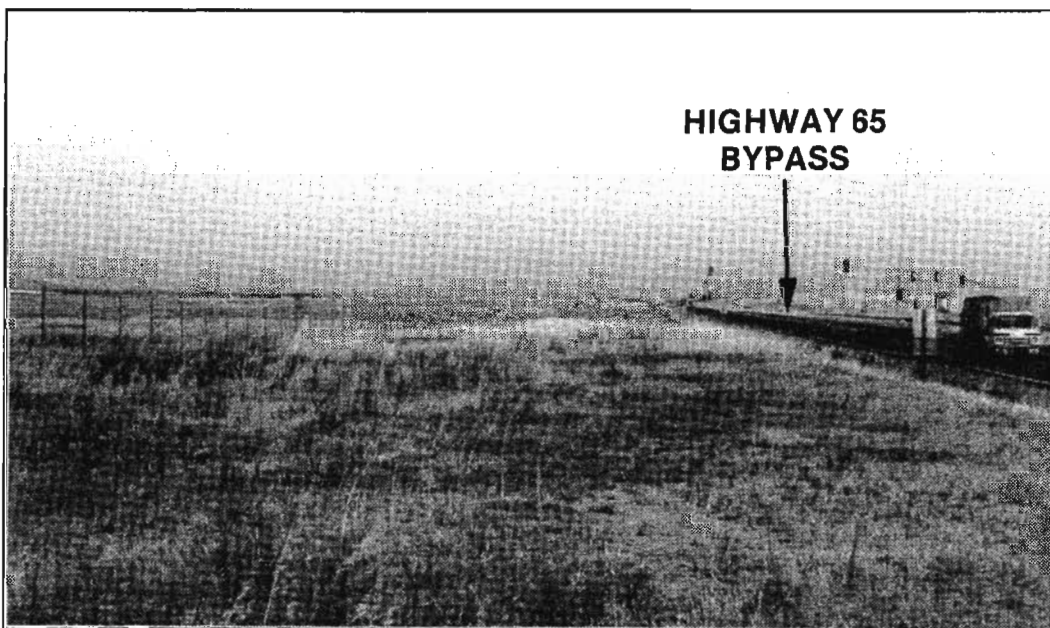
Photograph Inventory Map



Site Photos



1. Looking west over land form and vegetation types of site.



2. View west to lands adjacent to highway 65. Shows typical land form and vegetation types in area.

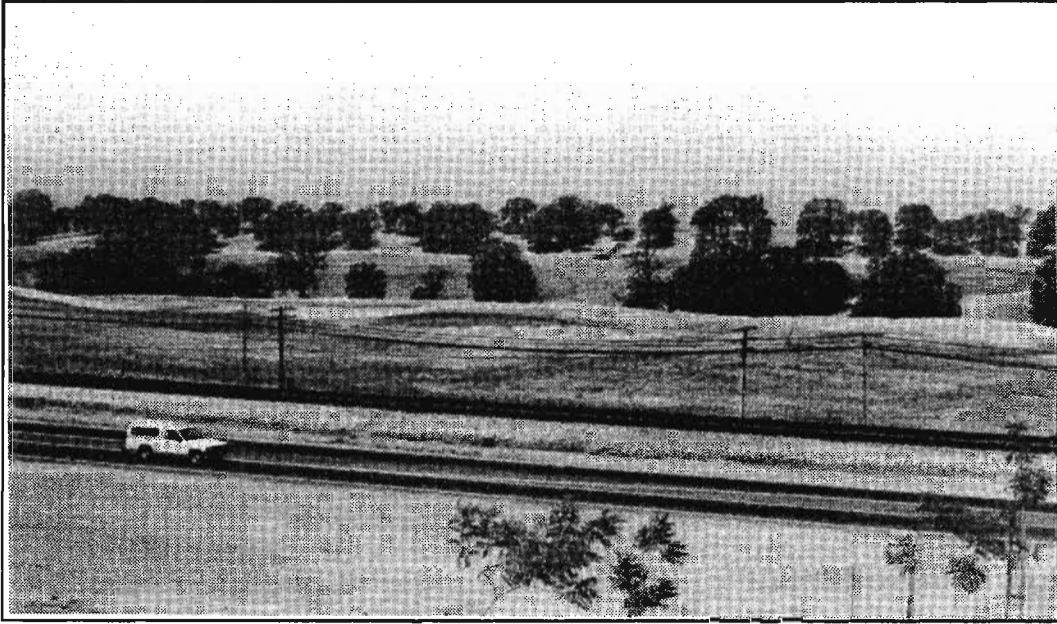


3. Looking southwest from the 65 bypass into the Antelope Creek Corridor



4. Looking Northeast towards Rocklin from the Highway 65 bypass

Site Photos



5. View west from highway 65 to oak trees of site

Most of the landform is gently rolling. Naturally formed drainageways on the site create a network of generally east-west aligned swales. Elevations are higher in the northern portion of the site, although none are high enough to allow a significant view. The greatest elevation differences occur in the extreme southeastern portion of the Plan area.

Annual grasslands cover 95 percent of the area. They are green, scattered with wildflowers in the spring, and brown throughout the remainder of the year. The vernal pools put on a colorful display during their short blooming season with species sequentially blooming and fading over approximately three weeks.

The primary concentration of oak trees in the Plan area is along the Antelope Creek corridor. The tree canopy is so dense in areas that it is closed overhead. Tree densities decrease with distance from the creek's edge. Several varieties of oaks are represented, some with impressive height and diameters (see Figures 3.12-2, 3.12-3, and 3.12-4).

The Antelope Creek oak woodland is the most dominant natural visual element found on the site. The woodland is unique to the Plan area and, with the other associated riparian vegetation, offers vegetative patterns that provide visual diversity to an otherwise homogeneous landscape. The vernal pools likewise offer some visual diversity to the landscape during the blooming season.

View Corridors

Views in the Plan area range from foreground (0 to ½ mile), to middleground (½ to 2 miles), to background (2± miles). They are generally expansive and predominantly unhindered both into and across the area. The bluff above Antelope Creek offers superior views to the east. From the west, however, the bluff hinders distant views into the site from I-80. View corridors are broad, and generally oriented to background features in adjacent offsite areas. An exception to this is the Antelope Creek area which has a higher level of visual resource variety in landform, vegetative type, and character, and for these reasons serves as a visual draw. The Plan area is observable from I-80, Highway 65 bypass, and Washington Boulevard. At typically high speeds, views of drivers and passengers are fleeting. However, the open space resource serves as a visual buffer from adjacent development and currently forms the dominant visual impression of the area for those travelling along Highway 65 Bypass and, to a lesser extent, I-80.

Policy Review

Scenic Highway Element

The Scenic Highway Element of the General Plan relates closely to the Circulation, Open Space, and Conservation Elements.

According to the City of Roseville, a combination of topographic relief, existing biota, and general openness contribute to the scenic value of the area. There is a strong need to preserve and enhance the scenic qualities that exist along the major roadways to establish identifiable separations from neighboring jurisdictions to preserve the community identity. The City has developed general approaches to creating and maintaining its unique scenic quality from land acquisitions and buffers to application of zoning or site design restrictions.

The primary thrust of Roseville's Scenic Highway Element is the concept of "community identity or entrance corridors." The following existing roadways and proposed routes within or adjacent to the Plan area identified as "community identity" corridors are: Washington Boulevard, Interstate 80, and Highway 65 Bypass.

It is stated in the Scenic Highway Element that any development adjacent to designated community identified corridors is prohibited until a specific plan is adopted that can guide that development. The following relevant factors are listed as guidelines to help ensure the visual quality of the three designated corridors.¹

Highway 65 - Washington Boulevard

- ✧ Broad source vistas should be considered along the corridor north of Diamond Oaks Road.
- ✧ Topographic relief should be used to screen development when possible.
- ✧ Consistent sign control should be maintained.
- ✧ Maintain minimum noise barrier for residential development.

Interstate 80

- ✧ Topographic relief should be used to screen development from freeway.
- ✧ Trees should be preserved, especially adjacent to stream crossing and paralleling the corridor.
- ✧ Consistent sign control should be maintained.
- ✧ Maintain minimum noise barrier for residential development (Ostrow).

Highway 65 Bypass

- ✧ Unique design should be employed when developing on/or adjacent to volcanic flow area.
- ✧ Broad vistas should be preserved on both sides of the corridor.
- ✧ Trees should be preserved, especially where Antelope Creek is crossed.
- ✧ Consistent sign control should be maintained.
- ✧ Minimum noise corridor for residential development.
- ✧ Maintain consistent site review and subdivision standards for new development.

Four City goals stand out: 1) to maintain broad vistas, 2) to limit visual intrusion of development adjacent to freeways, 3) to preserve trees, and 4) to preserve visual quality through sign control. The method by which these goals are met would be subject to City approval and is addressed in the Specific Plan.

North Central Specific Plan²

The North Central Roseville Specific Plan includes policies and guidelines to insure the orderly development of the Plan area and to act as specific controls for proposed development.

The Specific Plan discusses visual quality in Section 3, Community Design Guidelines. This section is oriented to the physical elements of the built community with the intent of providing a level of consistency throughout the Plan area, as well as assuring maintenance of visual resources.

Design features included in the section are architecture, landscaping, screening/fencing, lighting, signage, and street furniture.

IMPACTS AND MITIGATION MEASURES

Introduction

This section analyzes how the visual quality of the site might be adversely impacted by proposed visual change resulting from the proposed Plan buildout.

The existing visual elements of the Plan area include the Mehrten formation vernal pools and associated vegetation, Antelope Creek, and the oak woodlands. All of these add to the uniqueness and visual character of the Plan area.

The visual character of the site is currently used in an indirect manner by numerous travelers along the major roadways. Some of these roadways have special

designation by the City and are considered scenic corridors whose broad vistas should be maintained.

Current view corridors are virtually boundless and enjoyed by onsite and offsite observers alike (see Figure 3.12-5).

✱ **Conversion of the Plan area from undeveloped rural landscape to urban development and interruption of long-range views**

It is unrealistic to imagine that the parcels of land within the Specific Plan area will remain rural in character and use in perpetuity. However, the extent of development proposed will create a significant deviation from the existing character.

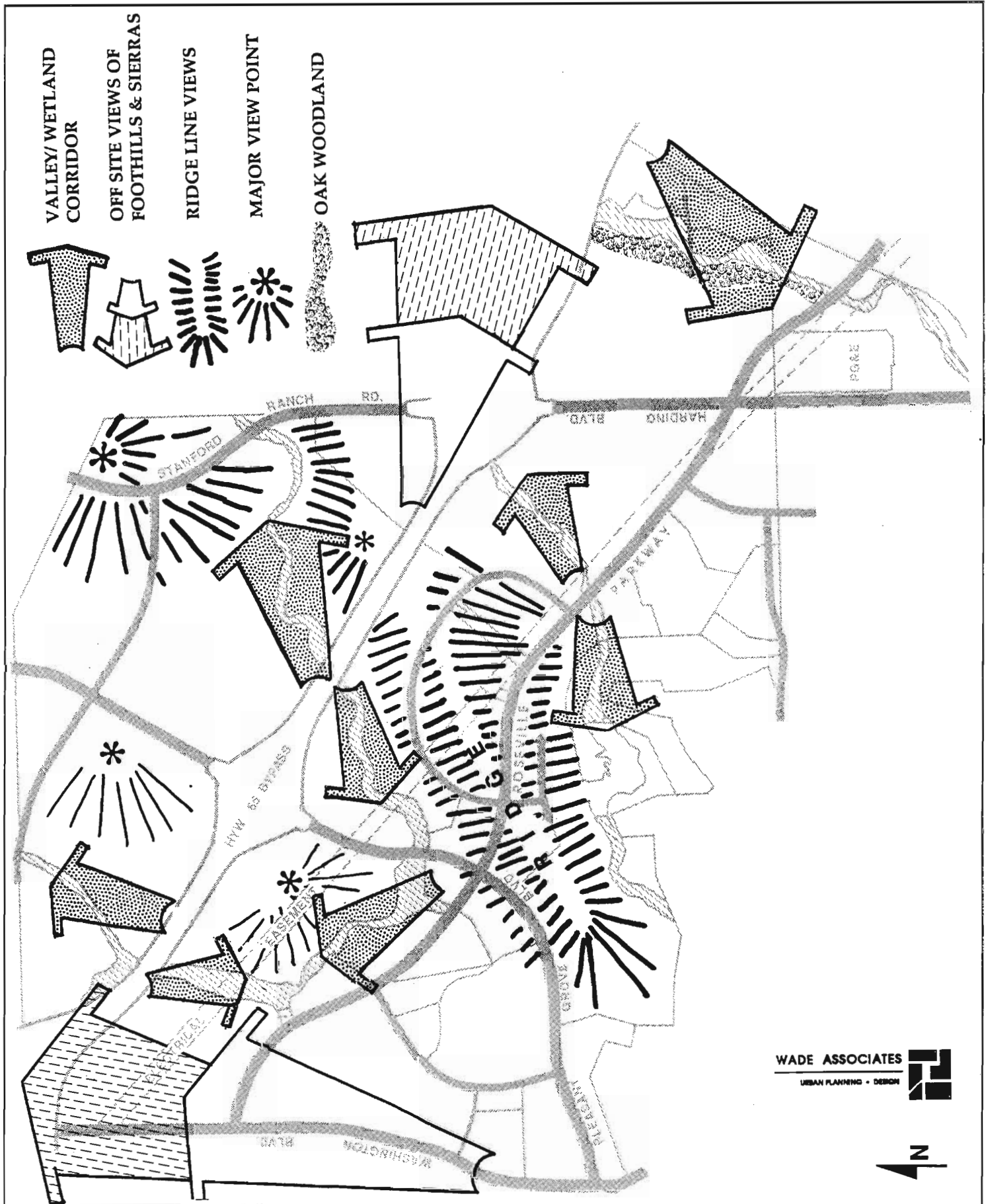
A subset of impacts will be that the Plan area will lose its broad vistas and expansive view corridors. It will lose its "natural" character to ornamental landscaping. The Plan area change will no longer provide a broad visual buffer between developments. The area will potentially become visually fragmented because of the need to separate land uses. Views will predominantly be short-range, foreground views inwardly focused as opposed to long-range distant views outwardly focused.

The existing visual resources as described in the Setting section are becoming increasingly scarce in the immediate Roseville area. This scarcity raises their loss to a higher level of significance than would be indicated by analysis of any one element or collection of elements. The importance of maintaining a portion of the visual character of the natural area is a matter of maintaining some visual "heritage" in the area. This modification of visual resources and visual resource quality in the Plan area is considered an *unavoidable significant impact* under the current Plan development.

Mitigation Measures

Mitigation Measures Identified in the Specific Plan

3.12-1 *No policies are identified which serve to mitigate this impact.*



Mitigation Measures Recommended by the EIR

3.12-2 *None available.*

There are no mitigation measures which can be implemented to totally mitigate the loss of rural character, the elimination of broad extensive view corridors, or the urbanization of the area resulting with the development of the Plan. Additional guidelines for visual and aesthetics resources will be developed in conjunction with development agreements for individual parcels within the Plan area. During this process the City will oversee and administer the level of detail and specificity that it deems necessary.

ENDNOTES

1 *City of Roseville General Plan*, Scenic Highways Element, Roseville, California, Amended 1985.

2 Ibid.

3 *North Central Roseville Specific Plan*, Roseville, California, February 6, 1989.

3.13 POPULATION, EMPLOYMENT, AND HOUSING

SETTING

Population

The Sacramento metropolitan area is recognized as one of the fastest growing regions in the country. The municipalities likely to be most impacted by this growth are the smaller outlying communities around Sacramento which have vacant land available for extensive development. Roseville, situated on the fringe of urban growth, has already begun to experience accelerated growth. The population of Roseville has grown from roughly 18,000 in 1970 to nearly 38,000 in 1988. During this period, annual growth rates ranged from 1.8 percent (1973 to 1988) to 8 percent (1987 to 1988), producing an average annual growth rate of 3.6 percent for this 18-year period. Growth rates continue to increase, with the 1988-1989 growth rate being 9.93 percent.

The City projects this trend will continue, and Roseville will grow by an additional 126 percent between 1990 and 2005, with the most vigorous growth (6.1 percent annually) occurring in the period before 1995. In comparison, Angus McDonald and Associates forecast a 49 percent increase in population for the Sacramento region as a whole for this same period. Regardless of the rate at which growth occurs, the Roseville General Plan, based on infrastructure constraints, limits the ultimate population of the City to 92,000 people. The McDonald study assumes that at least two-thirds of the General Plan area will be developed by the year 2005. While growth has been somewhat faster than anticipated, the City assumes two-thirds buildout by 2005 for purposes of analysis.

Employment

As shown in Table 3.13-1, land uses in the North Central Roseville Specific Plan area are predicted to create approximately 16,992 jobs. Thirty-seven percent of jobs would be created by regional commercial development and 41 percent created by business-professional and business-professional/commercial development.

Housing

A key policy of the Affordable Housing Element of the Roseville General Plan is to provide housing in a wide range of prices, as necessary, to fulfill the projected needs of residents of Roseville.

TABLE 3.13-1
PREDICTED JOB GENERATION IN THE NCRSP AREA

	Acres	Employees/Acre	Jobs
Business Professional	144	34	4,896
B-P/Commercial	75	27	2,025
Commercial	69	20	1,380
Regional Commercial	208	30	6,234
Light Industrial	<u>189</u>	13	<u>2,457</u>
TOTAL	685		16,992

SOURCE: City of Roseville, May 1986; McDonald & Associates, February 1988; and Fehr & Peers, January 1989, Wade and Associates, March 21, 1989.

Assuming that affordability tends to increase with residential density, General Plan Land Use Policy 9 allocated 12,000 units for future growth. General Plan Land Use Element Policy 9 specifies that 5,000 of these units be allotted to the north area, i.e., the Northwest Roseville Specific Plan and the North Central Roseville Specific Plan areas. The policy does not specify the distribution of these units between the respective Plan areas. Land Use Policy 10 requires that at least 3,000 units be developed at an average of 10 units per acre, and at least 2,000 units be developed at an average of 15 units per acre. The Specific Plan provides for 4,408 housing units, 2,690 units at 11 units per acre and above.

Housing Affordability and Need

The General Plan provides a clear definition of "affordability," based upon household income, for both homeowner and renter categories. According to the General Plan:

For households purchasing their units, maximum housing costs for moderate and above moderate income households should not exceed the maximum percentage of gross income allowed by mortgage lenders in qualifying home buyers, currently in the 35 percent range. Low-income households should not spend more than 30 percent of their gross income in principal, interest, taxes and insurance.

For households renting, the General Plan specifies that:

Very low- and low-income households should not spend more than 30 percent of their gross income on housing costs. This figure has been adopted by the Federal government and is being implemented in their housing programs.

Middle-income households should not spend more than 35 percent of their gross income on housing costs.

Moderate and above moderate income households are determined not to require rental housing assistance and the household should pay whatever it feels it can afford toward rent.

Income categories are defined as:

Very Low-Income: Household income is 50 percent or less of the median income for households of similar size.

Low-Income: Household income is between 50 percent to 80 percent of the median income for households of similar size.

Middle-Income: Household income is between 80 percent to 100 percent of the median income for households of similar size.

Moderate Income: Household income is between 100 percent to 120 percent of the median income for households of similar size.

Above Moderate Income: Household income is greater than 120 percent of the median income for households of similar size.

Because the definition of "affordable" housing is based upon income, the actual value of affordable housing is subject to change as more current income data continually becomes available. Table 3.13-2 presents the income information prepared by the U.S. Department of Housing and Urban Development, January 1988. Rental and purchase values for affordable housing would be calculated by applying the definition of affordable housing to the above income information.

According to the Housing Element of the Roseville General Plan, based on projected population growth from 1985 through 1991, Roseville will require an additional 3,659 dwelling units. Of these units, 1,818, or approximately 50 percent, will need to be affordable to very low/low-income households.

Roseville General Plan Housing Policies

In response to the existing and projected need for additional affordable units throughout the City, Roseville has adopted an Affordable Housing Goal which specifies that 10 percent of all new residential construction in the various Specific Plan areas and infill areas of the City be made affordable to very low and low-income families. Even though it is recognized that achievement of this goal will not meet the projected affordable housing need, the City adopted the 10 percent goal as the maximum level of participation that is financially and politically attainable.

In addition to implementation of the 10 percent affordable housing goal for new construction, the Housing Element identifies several other measures to promote affordable housing in existing housing stock in the City. Such measures include preservation of older housing throughout the City, discouraging conversion of affordable housing to more expensive residential uses, discouraging conversion of residential areas to business professional uses, targeting neighborhoods for redevelopment programs, relaxing the processing and fee structure requirements for affordable housing projects, and promoting financing programs and mechanisms to provide financing at affordable rates within the City.

Since no housing currently exists in the Specific Plan area, only the 10 percent affordable housing goal applies to the project. The General Plan provides that the 10 percent goal can be met with 5 percent of total units affordable to very low/low-income families and 5 percent of total units as ownership units affordable to low-/middle-income families.

Proposed Specific Plan Housing Policies

Rental Housing Affordable to Low-Income Households

The Specific Plan designates a certain number of housing units on particular multifamily residential parcels to be "affordable to low-income households for a period of years pursuant to an agreement with the City" and proposes that the City subsidize the rent of these housing units. The proposed program would produce 324 units affordable to low-income households or 7.4 percent of the total number of units in the Specific Plan area (see Table 3.13-3).

TABLE 3.13-2**MEDIAN HOUSEHOLD INCOME BY FAMILY SIZE - SACRAMENTO SMSA**

Family Size	Very Low Income	Low Income	Middle Income	Moderate Income	Above Moderate Income
1	\$12,650	\$20,250	\$25,313	\$30,376	\$30,376+
2	14,450	23,100	28,875	34,650	34,650+
3	16,250	26,000	32,500	39,000	39,000+
4	18,050	28,900	36,125	43,350	43,350+
5	19,500	30,700	38,375	46,050	46,050+
6	20,950	32,500	40,625	48,750	48,750+

SOURCE: U.S. Department of Housing and Urban Development, 1989.

TABLE 3.13-3
ALLOCATION OF AFFORDABLE HOUSING UNITS

Parcel Number	Total Units	Affordable Units	Percentage Affordable
Allocation of Middle-Income Purchase Units by Parcel			
1	466	23	4.9
2	115	6	5.2
4	290	15	5.2
5	365	18	4.9
12	320	32	10.0
13	180	18	10.0
20	46	<u>5</u>	10.1
Subtotal		117	
Allocation of Low-Income Rental Units by Parcel			
8	298	30	10.1
11	574	57	10.0
14	214	112	52.3 seniors
15	636	64	10.1
16	274	27	10.0
17	<u>340</u>	<u>34</u>	<u>10.0</u>
Subtotal		324	
TOTAL UNITS	4408 ¹	441	10.7

¹ Parcels not listed would not have any affordable units.

SOURCE: Draft NCRSP.

Purchase Housing Affordable to Middle-Income Households

The Specific Plan designates a certain number of housing units on particular low-density residential parcels to be "affordable to middle-income households at the time of sale." Specific Plan policies call for the Development Agreements between the City and developers in the Specific Plan area to require recordation of a deed or covenant to ensure that the original purchaser and all successors in interest can sell only to middle-income households as defined in the Roseville General Plan Housing Element.

This program would produce 117 housing units affordable to middle-income households, or 2.7 percent of the total number of housing units in the Specific Plan area (see Table 3.13-3).

The total number of affordable housing units proposed is 441, which is 10 percent of the 4,408 housing units proposed for the entire Specific Plan area.

The sites for affordable housing were chosen by the Specific Plan area landowner/developer based on project design and marketing criteria.

Jobs/Housing Balance

Jobs/Housing Balance in Specific Plan Area

The proposed distribution of housing by density in the North Central Roseville Specific Plan is presented in Table 3.13-4. Assuming 2.64 persons per household (less than R-6), 2.06 persons per household for medium-density housing (R-6 to R-9), and 1.76 persons per household for high-density housing (R-10 and above), buildout of the North Central Specific Plan area will provide housing for approximately 9,034 residents in 4,408 housing units.

The Specific Plan will also provide 16,992 jobs at full buildout. Assuming the average workers per household to be 1.35 (Wade and Associates, March 21, 1989), there would be approximately 5,950 workers living in the Specific Plan area, a ratio of 2.9 jobs/employed resident.

Jobs/Housing Balance in Roseville City Limits

The 1980 census showed Roseville to have a jobs to employable residents ratio of approximately 1.3. This ratio is predicted to increase to a 1.75 jobs/employed residents imbalance within the city limit as a result of two-thirds buildout of the various Specific Plan areas by 2005 or to 1.79 jobs/employed residents with full buildout of the Specific Plan area by 2005. The contributions of the various specific plans to this imbalance is depicted in Table 3.13-5. Since the Specific Plan area is only a part of a much larger developed area, it would not be reasonable to expect a balance of jobs and housing in the Specific Plan area.

TABLE 3.13-4
RESIDENTIAL ALLOCATION BY DENSITY CATEGORY

	Dwellings	Percent of Housing in NCRSP	Average Household Size	Population
Low-Density (R-1 to R-5)	1,312	30	2.64	3,464
Medium-Density (R-6 to R-10)	406	9	2.06	836
High-Density (R-11 and above)	<u>2,690</u>	61	1.76	<u>4,734</u>
	4,408			9,034

SOURCE: Draft NCRSP.

TABLE 3.13-5
JOBS/EMPLOYED RESIDENTS BY SPECIFIC PLAN

	<u>"Two-Thirds"¹ Development</u>			<u>Buildout of Various Areas</u>		
	Jobs	Employed Residents	Ratio	Jobs	Employed Residents	Ratio
North Industrial	15,220			15,200		
Southeast	2,900	3,340	0.87	4,270	5,160	0.83
Northeast	14,110	2,340	6.03	17,140	2,340	7.32
North Central	12,328	3,540	3.20	16,992	5,730	2.97
Northwest	1,260	7,150	0.18	5,670	10,650	0.53
Remainder of City	<u>16,680</u>	<u>19,400</u>	<u>0.86</u>	<u>16,700</u>	<u>19,420</u>	<u>0.86</u>
Total Roseville	61,498	35,770	1.72	75,972	43,300	1.75
Total 8-Mile Commute Shed	78,579	79,314	.99	117,868	118,971	.99

¹ Residential Growth to 2005 equals 65 to 75 percent of potential growth to buildout. Non-residential growth to 2005 represents about 35 to 40 percent of potential growth to buildout.

SOURCE: Wade and Associates, March 21, 1989; Fehr and Peers Associates, June 7, 1989.

Jobs/Housing Balance in Eight-Mile Commute-Shed

Analysis of jobs/housing balance within an 8-mile commute of the Specific Plan Area performed by Wade and Associates in March 1989 indicated that the demand for housing due to increased employment and the supply of housing would be almost balanced for an area within an eight-mile commute from the project site. With anticipated growth, including the Specific Plan, by 2005 the ratio, within this eight-mile radius, is predicted to be approximately 0.99 (87,245 households generated by employment to approximately 88,127 housing units). The Wade Associates Study is incorporated into this EIR and is appended to this report. The following discussion is drawn from that study.

The purpose of this analysis is to compare the potential development of jobs to the potential for housing relative to the proposed development in the North Central Specific Plan area. The analysis takes into consideration all new housing and non-residential development in eighteen plans proposed in the South Placer region, generally defined as the area from Lincoln to Roseville, and from west Roseville to the Granite Bay area. This subarea of the region was defined generally by the South Placer Policy Committee as the "Housing Impact Area" affected by job development along the Highway 65 Corridor. The impact area is delineated by a determination of a "commute shed" of approximately 8 miles centered on the intersection of Highway 65 and Blue Oaks Boulevard.

The essence of the jobs/housing calculation is to estimate the number of households generated by potential employment, and to compare that estimate to the number of dwelling units expected to be available. Benefits of such a balance include maximizing the diversity of the economy and minimizing transportation and air quality effects that accompany new development. The analysis works to insure that workers can afford housing within a reasonable distance from their place of work.

Commute sheds define the spatial boundaries of the jobs-housing relationship. They were delineated for this study by estimating the area encompassed on a map found by tracing from the center of the study area, the intersection of Highway 65 and Blue Oaks Boulevard, to points 2, 4, 6, and 8 miles distant, along probable worker commute routes.

New statutory requirements linking residential development to a reasonable commute distance from developing industrial areas will tend to shorten commutes and, therefore, enhance the jobs/housing relationship.

The California Department of Housing and Community Development (Memorandum to Gruen Gruen and Associates, November 28, 1980), studied the commuting pattern in the Sacramento area and determined the average one-way commute distance to be 7.44 miles. To shorten the average commute distance by 25 percent in the South Placer region would decrease the average one-way commute distance to 6.15 miles. Implementing the reduction would require a home-work trip distribution as follows:

Less than 6 miles one way	60% of home-work trips
6-8 miles one way	20% of home-work trips
Greater than 8 miles one way	20% of home-work trips

The ability to implement shorter commuting distances assumes that the South Placer region will continue to provide increased employment and affordable housing within a short distance of one another. Evidence from the 1987 South Placer Employee Survey (City of Roseville Planning Department, 1987) reveals that new residents tend to have a shorter commute to work than the population as a whole. The survey found one-way median commute for new residents to be 6.0 miles, a full three miles shorter than the median one-way commute of 9.0 miles for the population as a whole. These findings indicate that new residents are able to find housing reasonably close to employment.

Regional Jobs/Housing Balance

According to a jobs/housing study prepared by Angus McDonald, there are presently approximately 0.9 jobs for every employable resident in the Sacramento region. This balance indicates that a number of residents in the vicinity must "out-commute" to other areas for employment. However, based on current growth projections, this balance is predicted to reverse by 2005 to include approximately 827,000 jobs and approximately 813,000 employed residents, producing a balance of 1.02 jobs per employed resident. Of these, Roseville will account for approximately 36,000 (4 percent) of the employed residents and 63,000 (8 percent) of the jobs. This includes presumed two-thirds development of the various Roseville Specific Plan areas. If the more conservative assumption that buildout of the Roseville Specific Plan areas occurs by 2005, the Roseville contribution to these figures would slightly increase to approximately 43,000 (5 percent) of the employed residents and 77,000 (9 percent) of the jobs.

IMPACTS AND MITIGATION MEASURES

✖ Increase in population of approximately 9,034 people

As discussed above, buildout of the proposed residential development in the North Central Roseville Specific Plan area will result in a population increase of approximately 9,034 people. This in itself is a *significant impact*. The other potential impacts of population growth, such as traffic increases and increased demands on public services, are assessed in other parts of this EIR.

Mitigation Measures

There are no mitigation measures available to reduce this impact to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.13-1 *None identified.*

Mitigation Measures Recommended by the EIR

3.13-2 *There are no mitigation measures available.*

❖ **Project impacts on affordable housing**

Development of the Specific Plan will result in construction of approximately 4,408 housing units. Of these units, approximately 1,340 (30 percent) will be single-family detached units, 546 (12 percent) are proposed as single-family attached dwellings, and 2,522 (57 percent) will consist of apartments. Without the implementation of affordable housing measures, it is probable that nearly all of this housing would be priced beyond the ability of very low- and low-income families. This is a *potentially significant impact*.

The Roseville General Plan Citywide Housing Goal and Housing Element Policy 5 calls for 10 percent of housing development to be affordable to very low-/low-income households. General Plan Housing Element Policy 3 also recognizes that "Households with middle-incomes are not currently having their purchase housing needs met."

Mitigation Measures

Implementation of Mitigation Measure 3.13-3 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

- 3.13-3 *Mitigation measures provided in the Specific Plan require 10 percent of the total housing stock in the North Central Roseville Specific Plan to be made available for participation in the affordable housing program.*

With the program set forth in the Specific Plan for the creation of apartment units affordable to low-income households, and the program to provide purchase housing affordable to middle-income households, the General Plan goal of 10 percent affordable units would be met by the Specific Plan. Units proposed for participation in this program are identified in Table 3.13-3.

Mitigation Measures Recommended by the EIR

- 3.13-4 *No additional mitigation measures are recommended.*

❖ **Cumulative impacts on affordable housing**

Housing Element Policy 5 describes the Citywide Housing Goal as "an achievable affordable housing goal based on existing and expected fiscal and political realities." Policy 5 states that "The City recognizes such a goal may fall short of the projected affordable housing needs, but believes that this is preferable to setting a goal based on a need which cannot be met."

Since citywide housing policies cannot produce enough affordable housing to meet the full need, and since the project would similarly not provide sufficient affordable housing for the full need projected in the Housing Element of the General Plan, the project will contribute to the cumulative lack of affordable housing in the City. This is a *potentially significant impact*.

Mitigation Measures

There are no mitigation measures available to reduce cumulative impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.13-5 *None identified.*

Mitigation Measures Recommended by the EIR

3.13-6 *There are no mitigation measures available.*

❖ **Creation of approximately 16,992 jobs and effects on eight-mile commute shed jobs/housing balance**

As calculated in Table 3.13-1, land uses in the North Central Roseville Specific Plan area are predicted to create approximately 16,992 jobs. This would significantly contribute to the existing preponderance of jobs compared to housing in the City of Roseville. As discussed above, in 1980 there were 1.3 jobs for every employable resident in Roseville, and buildout of the North Central Roseville Specific Plan area will contribute to a citywide jobs/employed resident imbalance of approximately 1.75 jobs for every employed resident in 2005.

Because commute patterns are regional and not confined to jurisdictional boundaries, the balance of jobs and housing within the city limits is less significant than the balance of jobs and housing in the general area of the project. The Wade Associates study, appended to this report, describes the basis for the eight-mile commute area used to measure jobs housing balance and determines that, within an eight-mile commute of the Specific Plan area, a balance of jobs and housing is predicted. For this reason, at buildout, the project will have a *less-than-significant impact* on the jobs/housing balance within the eight-mile commute shed.

Mitigation Measures

Mitigation Measures Identified in the Specific Plan

3.13-7 *None identified.*

Mitigation Measures Recommended by the EIR

3.13-8 *None required.*

❖ **Growth-inducing effects of jobs/housing ratio within the project**

The consequences of the predicted imbalance of jobs to housing within the City of Roseville could impact the urban environment of the region. The most important consequence would be a continuing growth-inducing impact resulting from the overall demand for additional housing within the commute shed to serve employees being generated. As long as the demand for workers exceeds the available work force, competition among employers for available employees should result in a strong salary and benefit structure. This would, in turn, be expected to attract employees from other locations, many of whom will desire to reside in Roseville, thus, increasing the demand for the limited supply of housing in the area. Until nearby housing develops, a potentially significant consequence of this imbalance could be the attraction of employees from other areas in Sacramento and the foothills.

The increased pressure on the housing market and increase in demand, due to the local (City of Roseville) imbalance of jobs and housing, would create significant growth pressures. If the projected number of jobs materializes in the City, then housing demand would far exceed that allowed for in the General Plan. However, within the eight-mile commute shed, adequate housing should be available. Of the 88,127 units projected within the commute shed, 69 percent have already been the subject of environmental review and agency approval. Therefore, the demand for 31 percent which have not yet been reviewed or approved can be considered a *potentially significant growth-inducing cumulative* impact of this Plan, and the other Plans shown in Table 3.13-5. This impact is most likely to occur in the areas to the north and west of Roseville.

Mitigation Measures

Implementation of Mitigation Measure 3.13-10 would reduce impacts of the project to less-than-significant levels.

Mitigation Measures Identified in the Specific Plan

3.13-9 *None identified.*

Mitigation Measures Recommended by the EIR

3.13-10 *Convert some of land designated as employment generating to urban reserve. (Mitigation Implementation Responsibility: City of Roseville)*

ENDNOTES

¹ City of Roseville. 1977. City of Roseville General Plan, Roseville, California, June 1977 (Amended 1983, 1984, 1985).

² City of Roseville. 1989. Administrative Draft North Central Roseville Specific Plan, City of Roseville, February 6, 1989.

³ Wade Associates. 1989. Summary of Jobs to Housing Balance in the South Placer Region prepared for the City of Roseville, March 21, 1989.

⁴ Fehr and Peers. 1989. Traffic Analysis, January 1989.

3.14 FISCAL ANALYSIS

SETTING

The Analytics Company was retained to determine the fiscal impacts associated with approval of the North Central Roseville Specific Plan. Their findings are contained in a fiscal analysis which is appended to this EIR. This section of the EIR is a summary of the appended fiscal study.

The City of Roseville will collect revenues from the new residents and businesses attracted to this area. The City will also incur expenses for providing services to these new residents and businesses. The objective of this study is to estimate the net fiscal impact associated with the proposed development. This study assumes: 1) complete buildout under the proposed design, 2) service to the proposed development will be extended at the existing service levels, and 3) constant dollars based on the 1988-89 Proposed Budget for the City of Roseville.

IMPACTS AND MITIGATION MEASURES

✱ Increased general fund revenues

Results of the fiscal analysis indicate that the City will accrue a net annual surplus of approximately \$1,998,100 from the fully built out Specific Plan area. The principal revenue sources are predicted to include: property taxes totaling \$1,637,900 per year including residential, commercial, and unsecured property taxes and penalties; sales tax totaling \$3,440,200 annually from the new population and commercial development; utility users' taxes of \$548,400 annually; and motor vehicle and trailer coach in lieu fees of \$304,700 annually.

Principal additional costs incurred by the City include net annual outlays of \$1,402,400 for police patrols and related activities; \$887,400 for operation of a new fire station in the North Central area of the City; \$367,100 for public works and planning activities (including road maintenance); and \$287,900 for maintenance and operation of new parks and recreation programs. Infrastructure for solid waste disposal, water, sewage disposal, storm drainage, and utilities are either adequate to absorb the additional development or planned for expansion as part of this Plan, therefore, no unreimbursed costs are predicted for these items.

Assuming continuation of the current household mix, development of the Plan area is predicted to generate approximately 760 high school students who would attend the Roseville Joint Union High School District and 1,123 students attending the K-8 grades who would attend the Roseville City Elementary School District. Ongoing costs associated with these students are assumed to be covered by property taxes accruing to the school districts and state subsidies for enrollment. Additionally, the

districts are working with the City and the developers to implement Mello-Roos funding for capital costs which cannot be covered through mitigation fees paid by the developers or other funding sources presently available.

Although some development fees are uncertain or unknown at this time, the sum of known fees which would be assessed against projects within the Plan area exceeds \$87.2 million. The most substantial fees will include traffic mitigation fees (\$32.3 million), school impact fees (\$11.1 million), and water system connection charges (\$9.8 million).

Additionally, known building permits and related fees which offset City operations will total approximately \$4.7 million. Sewer connection fees are estimated at \$20.4 million. Impact fees for parks (\$5.1 million) and refuse containers (\$0.1 million) represent additional fees which are used to offset one-time City costs.

The City hopes to create a redevelopment zone, 300 acres of which are in the North Central Roseville Plan area. Proposed developments in the area include apartments, business/professional offices, park land, PG&E facilities, one of the proposed mall sites, and urban and floodway reserves. It is estimated that completion of these developments will generate approximately \$466,800 in new property taxes annually which would otherwise go to the City's general fund.

The projected annual revenues and expenditures which will be generated by the North Central Roseville Specific Plan are listed in Table 3.14-1. A summary of the developer fees anticipated with development of the Plan area is presented in Table 3.14-2.

Once built out, the North Central Roseville Specific Plan area is predicted to generate approximately \$6,263,800 annually. Under the same conditions, the Plan area will require \$4,265,700 in annual expenditures. The balance of these figures, \$1,998,100, would be anticipated to accrue to the City as surplus funds from the Plan area.

Based on the present development impact fee schedule, development of the North Central Roseville Specific Plan area is predicted to generate approximately \$87,188,900 in one-time fees.

Fiscal impacts are considered to be *less than significant*.

Mitigation Measures

Mitigation Measures Identified by the Specific Plan

3.14-1 *None required.*

Mitigation Measures Recommended by the EIR

3.14-2 *None required.*

TABLE 3.14-1

PREDICTED ANNUAL CITY REVENUES AND EXPENDITURES DUE TO
NORTH CENTRAL ROSEVILLE DEVELOPMENT

Item	Amount of Revenues
<u>Revenues</u>	
Property Tax	
Secured	\$1,601,500
Unsecured	33,000
Penalties	3,400
Property Transfer Tax	81,200
Sales and Use Tax	3,440,200
Hotel and Motel Tax	39,600
Utilities Users' Tax	548,400
Franchises	36,700
Business License Tax	73,700
Fines	49,700
Motor Vehicle & Trailer Coach In-Lieu	304,700
Cigarette Tax	30,700
Other Miscellaneous Revenues	<u>21,000</u>
TOTAL ANNUAL REVENUES	\$6,263,800
<u>Expenditures</u>	
General Government	\$ 1,145,000
Public Safety	
Police	1,402,400
Fire	887,400
Other Public Safety	13,100
Public Works and Planning	367,100
Library	162,800
Parks and Recreation	<u>287,900</u>
TOTAL ANNUAL EXPENDITURES	\$4,265,700
ANNUAL NET REVENUES	<u>\$1,998,100</u>
SOURCE:	Analytics Company

TABLE 3.14-2

SUMMARY OF DEVELOPMENT FEES ASSOCIATED WITH
NORTH CENTRAL ROSEVILLE DEVELOPMENT
(In Thousands of Dollars)

Item	Commercial	Residential		Total
		Single family	Multifamily ¹	
<u>Inspection Fees</u>				
Building Permit	\$808.3	\$1,030.5	\$473.7	\$2,312.5
Plan Check Fee	525.4	1,004.7	394.2	1,924.3
Energy Plan Check Fee	262.7	0	67.6	330.3
Encroachment Fee	68.3	30.3	21.7	120.3
Subdivision Fees	0	41.1	6.6	47.7
<u>Infrastructure Fees and Taxes</u>				
Sewer Connection Fee	8,900.7	3,484.0	7,976.8	20,361.5
Water Connection Fee	3,473.8	2,382.5	3,941.4	9,797.7
Traffic Mitigation Fee	23,474.1	3,336.6	5,483.5	32,294.2
Fire Facilities Tax	1,997.7	915.7	696.5	3,609.9
School Mitigation Fees				
Roseville City Elementary	1,278.7	2,572.8	2,965.2	6,816.7
Roseville High School	799.2	1,608.0	1,853.3	4,260.5
Park Fees				
Residential Park Tax	0	578.9	819.2	1,398.1
Citywide Park Fee	0	984.9	2,255.0	3,239.9
Park Construction Fee	0	166.2	319.1	485.3
<u>Miscellaneous Fees</u>				
Refuse Container Fee	0	76.4	31.1	107.5
Strong Motion Fee	<u>59.9</u>	<u>12.8</u>	<u>9.8</u>	<u>82.5</u>
TOTALS	\$41,648.8	\$18,225.4	\$27,314.7	\$87,188.9
Estimated Total Fees and Taxes:				
Per Square Foot of Commercial Building:		\$5.20		
Per Single-Family Residential Unit:		\$13,600.00		
Per Multifamily Residential Unit:		\$8,900.00		

¹ Includes single-family cluster units zoned R6 and R8 (medium density).

SOURCE: Analytics Company.

❖ Increased competition with downtown Roseville retailing operations

Of particular concern to City officials is the potential effect of the new regional shopping center upon existing downtown retailing. In order to examine this situation, the economic study firm of Economics Research Associates (ERA) was retained to analyze this situation. Their letter report, dated January 18, 1989, and included as Appendix K to this report, is summarized below.

The research team first cataloged the retail businesses currently located in the downtown area. These businesses include: pharmacy, furniture stores, cinema, antique stores, bakery, coffee shop/cafe, auto parts store, resale shop, TV/video store, bank, savings and loan, finance company, jeweler, card room, cleaners, liquor store, women's apparel, and cycle dealer. In addition, there are several vacant shops and a vacant cinema.

The ERA report concludes that the new shopping center would have little effect on the downtown area, as the types of stores locating in a regional mall would not typically be in competition with the downtown area retailers. Possible exceptions to this would be the jewelers, women's apparel, and the cinema.

The ERA report states that downtown stores would be more likely to find increased competition from discount, community, neighborhood, specialty, and strip retail stores. Such stores typically would be located on Douglas or Harding Boulevards in already developed or developing areas of Roseville.

ERA is of the opinion that downtown area retailing is already substantially weakened, and that its future lies in a conscious revitalizing effort to find its unique niche in the overall marketing environment that is emerging as Roseville continues to develop.

Increased competition with downtown Roseville retailing operation is considered to be a *less-than-significant impact*.

Mitigation Measures

Mitigation Measures Identified in the Specific Plan

3.14-3 *None identified.*

Mitigation Measures Recommended by the EIR

3.14-4 *None required.*

3.15 HAZARDOUS MATERIALS

SETTING

Introduction

Hazardous material is a general classification which includes thousands of products, many of which are used daily by homeowners throughout the region. Pesticides, herbicides, swimming pool chemicals, solvents, cleaners, and thousands of other "everyday" products are classified as hazardous materials. The severity of misuse directly increases with the quantity of material involved and, consequently, measures to protect the public welfare have been established based on the quantity of material in use. Because the potential for serious ecological damage from misuse of small quantities is generally minimal, warning labels with instructions for use, and penalties for misuse are considered adequate to regulate consumer use of many hazardous products.

The potential for the serious threat to public health and ecological environments is judged to be most significant in situations where large quantities of material are involved. Specific legislation exists at all levels of government which clearly defines the acceptable methods for use, storage, transport, and disposal of hazardous materials. The quantity of materials judged to be potentially dangerous varies, and is determined on a material by material basis. Legislation concerning hazardous material is extensive and administered through numerous state, federal and local regulations. At the federal level, the Environmental Protection Agency is the lead agency in defining and regulating use of hazardous materials. Principal legislation which directly effects the use and disposal of hazardous materials includes the Resource Conservation and Recovery Act, the Clean Air Act, and the Clean Water Act. In conjunction with the EPA, the Department of Transportation administers the Hazardous Materials Transportation Act which regulates the shipping of hazardous materials on the nation's highway system.

Federal enabling legislation allows individual states to regulate and manage the use of hazardous materials within their domain as long as state legislation is at least as stringent as federal standards. Within California, monitoring of air emissions are conducted under the direction of the Air Resources Board; regulation of waterborne hazardous materials is the responsibility of the State Water Resources Board; the California Highway Patrol is charged with the cleanup and control of hazardous material incidents of state highways; and the Department of Health Services is responsible for administration of the Federal Resource Conservation and Recovery Act within the state.

City of Roseville

The City of Roseville generally recognizes hazardous material operators as those firms handling more than 500 pounds or 55 gallons of material per month. At the local level, the City of Roseville manages hazardous material use through Municipal Code, Chapters 9.60 and 14.26, and through the environmental review process. Principal implementation of hazardous material policies within the City are handled directly through the Roseville Fire Department, and indirectly through the Planning and Public Works Departments.

The principal legislation pertaining to the use of hazardous materials within the community is the Roseville Municipal Code, Chapter 9.60. This code requires persons or firms handling more than 500 pounds or 55 gallons of hazardous materials per month to submit an annual disclosure form to the Fire Chief describing the nature of the material, and any releases of the material within the community.

Roseville Municipal Code, Chapter 14.26, pertains to the composition of wastewater both entering and leaving the treatment facility. The City of Roseville, through the Public Works Department, has established wastewater standards which prohibit specific hazardous waste materials from being added to the system or discharged from the system into area waterways.

Finally, through implementation of the Roseville Zoning Ordinance, the Planning Department can facilitate development of hazardous waste operations in areas which are adequately separated from residential or other incompatible land uses. The compatibility of adjacent land uses is evaluated on a case-by-case basis.

IMPACTS AND MITIGATION MEASURES

✧ Potential for increased use and exposure to hazardous materials

Development of the Plan area to urban land uses carries with it the use of hazardous materials by homeowners and businesses alike. These uses will undoubtedly include the release of some hazardous materials into the environment. Inclusion of light industrial land uses within the Plan area carries with it the possibility that manufacturing operations which eventually locate in the Plan area will utilize hazardous materials. This is a *potentially significant impact*.

Mitigation Measures

Implementation of Mitigation Measures 3.15-2 and 3.15-3 will reduce project impacts to a less-than-significant level.

Mitigation Measures Identified in the Specific Plan

3.15-1 *None identified.*

Mitigation Measures Recommended by the EIR

- 3.15-2 *Comply with governing City regulations and ordinances. (Mitigation Implementation Responsibility: Property owners and tenants; City of Roseville Fire Department)*

As previously discussed, use of hazardous material is regulated at all levels of government. Use of small quantities of material is regulated by federal and state laws which require proper labeling of product containers. Local enforcement of hazardous waste regulations is the responsibility of Roseville, and is handled by the Roseville Fire Department. The appropriateness of any proposed activities should be evaluated on a case-by-case basis by the City prior to issuance of a use permit or rezoning. Prior to permitting the use of hazardous materials within the City, the nearest fire station should acquire proper equipment and training to handle emergencies involving the materials in use. As required by City ordinance, any activity which would use 55 gallons or more of hazardous material per month would be required to file a disclosure form with the Fire Department.

- 3.15-3 *Designate truck routes on Roseville Parkway, Harding/Stanford Ranch Road, and Pleasant Grove within the Plan area to prevent transport of hazardous materials through residential neighborhoods. (Mitigation Implementation Responsibility: City of Roseville Planning Department, Fire Department, Developers)*

4. CEQA CONSIDERATIONS

4.1 SIGNIFICANT IRREVERSIBLE EFFECTS

The major irreversible change which would result from implementation of the NCRSP would be long-term commitment of the resources of the Plan area to urban land use. The most notable of these include a reduction of vegetation and wildlife communities, including wetland and vernal pool habitat, and increased generation of pollutants into the environment. These irreversible impacts, which are unavoidable consequences of urban growth, are described in detail in the appropriate sections of this EIR.

4.2 SHORT-TERM VERSUS LONG-TERM PRODUCTIVITY

The cumulative and long-term effect of the proposed Specific Plan will be to introduce a residential and commercial environment into an area which is currently in a natural condition. This change will involve a substantial alteration of both the natural and the cultural environment of the Plan area. Development of the Plan area appears to be the logical long-term use of the area for the following reasons: urban development has already occurred in surrounding areas; the Plan area is adjacent to a developed area of the City; and the Plan area is of limited agricultural value.

4.3 GROWTH-INDUCING IMPACTS

According to CEQA, a Draft EIR must discuss the ways in which the proposed project will affect economic or population growth in the vicinity of the project and how that growth will, in turn, affect the surrounding environment. Project impacts on area growth may be direct or indirect. An example of a direct impact would be the development of housing as part of a proposed project. An indirect effect might be the creation of infrastructure on or off the project site which may facilitate additional development in the area.

Development of the NCRSP, as proposed, would create 4,408 dwellings which would accommodate about 9,034 additional residents. This would represent an increase in the existing Roseville population of roughly 24 percent if all other development in the City were to cease. At total buildout of the General Plan with a projected population of 92,000, NCRSP residents would represent approximately 10 percent of the total City population.

Roseville is located on the fringe of the Sacramento metropolitan area, an area which has exhibited unprecedented growth in recent years. Initially, much of this growth was residential in nature, and outlying communities became commuter communities to the larger Sacramento commercial and industrial center. However, as the amount of readily available developable land within the Sacramento metropolitan area has

steadily decreased, the focus of industrial and commercial growth has shifted outward. Communities such as Rocklin, Roseville, and Folsom have attracted many large commercial and manufacturing firms, such as Hewlett Packard, NEC, 3M, and Intel. If growth continues as predicted, increased numbers of prospective developers will shift the focus of their development operations outward from Sacramento. As this occurs, smaller communities will be forced to reevaluate and, in many cases, update their General Plans to cope with the increased demand for commercial and industrial growth and the environmental consequences of that growth.

Development of the Plan area will require extension of public services and utilities to the Plan area. In conjunction with extension of these facilities, upgrading of infrastructure outside of the Plan area, such as the water treatment plant, will occur. Improvements to the existing water treatment plant are proposed to accommodate growth associated with the development of the Northwest, Northeast, and Southeast Specific Plans, as well as the NCRSP, and would increase the capacity of the plant from the current capacity of 24 to 48 mgd.

Implementation of the Specific Plan will convert an undeveloped rural site into an urban community. Immediately to the south, east, and north of the Plan area are urbanized or urbanizing areas. Presently, the Plan area represents an undeveloped gap between these developed or developing areas. Development of the site does not, therefore, constitute "leapfrog" or premature development.

The Specific Plan includes a phasing plan which identifies an orderly progression for development of the Plan area. The proposed phasing plan places emphasis on development outward from the City and from locations of available infrastructure. Land use allocations allowed by the Roseville General Plan have been allocated, and development of the urban reserve areas within the Specific Plan area would require a major update or amendment of the General Plan. This process can be utilized to ensure orderly development of additional areas, as appropriate.

As indicated in the Population, Employment, and Housing section of this report, it is projected that a relative balance between the number of jobs and employed residents within an eight-mile radius of the NCRSP area will be achieved by the year 2005. However, predictions indicate that buildout of the Roseville General Plan will produce a greater number of jobs than residents to fill available positions within the City and immediate vicinity. The NCRSP will contribute to this situation. The consequences of such a condition may be to induce residential development in nearby areas of developable land, most notably in the Urban Reserve areas of the City, or outward from any of the smaller communities in south Placer County.

4.4 CUMULATIVE IMPACTS

Cumulative impacts are those impacts created by the combined effects of more than a single project. Even though the impacts associated with implementation of a single project may be less than significant, that impact when combined with impacts of other projects, could produce a significant impact. Project specific impacts are discussed in the respective sections of the EIR and are summarized and placed in a regional perspective in this section.

For the cumulative analysis, impacts of the Specific Plan were considered with buildout conditions of the Roseville General Plan and, as appropriate, with impacts of anticipated development of the larger regional area. In no instances were any impacts of the Specific Plan identified as the ultimate contribution which would turn a less-than-significant impact into a significant finding.

Project-generated impacts in the subject areas of hydrology, vegetation and wildlife, land use, air quality, jobs/housing balance, public services, visual quality, and transportation in combination with impacts associated with existing and planned projects in Roseville, Rocklin, and South Placer County are expected to be significant. In each of these subject areas, however, a potential for significant cumulative impacts already exists regardless of the proposed Specific Plan. The impacts of the Specific Plan to these cumulative conditions may be relatively small but, nonetheless, incremental contributions to an existing significant condition must be recognized.

Hydrology

As discussed in the Hydrology section of this report, the volume of storm runoff from the Plan area will be increased as development of the area proceeds and permeable surface area decreases. Potential increases in 100-year storm peak flows from the Plan area at buildout, however, will be kept at or below preproject peak flows by constructing and operating several detention basins in, and adjacent to, the North Central Roseville Specific Plan area. As a result, development of the Plan area is not expected to significantly contribute to potential downstream flooding conditions which currently exist and which may be exacerbated by increased runoff from other planned developments in the same watersheds as the North Central Roseville Specific Plan.

As previously noted, the concentrations of various contaminants, typically associated with urban runoff, are likely to increase as a result of development of the Plan area. These concentrations will be maintained at levels which will not significantly affect water quality objectives set by the Central Valley Regional Water Quality Control Board. This will be accomplished through the implementation of suggested mitigation measures. However, downstream degradation of water quality which will occur as a result of the combined effects of all planned development within the Pleasant Grove and Antelope Creek watersheds will be accelerated by any decreases in the quality of North Central Roseville Specific Plan runoff. Cumulatively, this constitutes a significant impact.

Vegetation and Wildlife

As documented in the Land Use section of this report, development is predicted to continue throughout Roseville with buildout to the Roseville General Plan land uses predicted sometime beyond 2005. As development occurs, the amount of undeveloped habitat area available for wildlife use will continue to decrease in the Roseville vicinity. As the amount of habitat decreases, wildlife species which are incompatible with the urban environment will be displaced.

Mitigation to reduce the magnitude of this impact is discussed in the Vegetation and Wildlife section of this report, and includes the preservation or enhancement of wildlife habitat in parks, stream corridors, vernal pool preserves, and open space areas. Even with this mitigation, a substantial change in habitat conditions will result as a consequence of the area transitioning into an urban environment. No threatened or endangered wildlife species are known to reside in the Plan area. However, several Cooper's hawks (*Accipiter cooperii*), a species of special concern, are known to nest in the City, and it is likely that the hawks utilize the undeveloped area around the City for hunting.

Of particular concern in the Plan area and the surrounding region is the preservation of wetlands and wetland-related areas, including vernal pools. As discussed in the Vegetation and Wildlife section of this EIR, wetlands, particularly vernal pools, represent a relatively rare and rapidly disappearing natural community. Previous land development and agricultural land use throughout the region has extirpated or compromised the vast majority of these areas, and anticipated growth in the region has the potential to destroy or compromise much of the remaining examples of these vegetation/wildlife associations. However, the 404 regulatory process conducted by the COE, EPA, and USFWS now protects vernal pools through a policy of "no net loss" on most projects. As a result, the Specific Plan proposes substantial areas to be designated to preserve wetlands, including specific vernal pool preserves and creation of artificial pools despite the relatively "low value" of the pools in the Plan area when compared to other such resources in the region (see Vegetation and Wildlife).

Nevertheless, development of the Plan area will result in a net loss of the vegetation and wildlife values now present in the region. In combination with losses associated with other projects in the area, this represents a cumulatively significant impact.

Land Use

Development of the Specific Plan area, in conjunction with other planned development in the surrounding area will cause a change in the character of the area from rural and suburban uses to urban uses.

Population, Employment, and Housing

Development of the Specific Plan area consistent with the proposed Specific Plan in conjunction with other planned development will result in as much as a 174 percent increase in population from 1989 to 2005. Employment could increase as much as 424 percent and housing by as much as 164 percent. The contribution of the North Central area, in relation to other buildout, is shown in Table 3.7-7 and the appended Transportation Study.

Traffic

The Traffic Impact section of this EIR and the appended traffic analysis prepared by Fehr & Peers Associates contains an analysis of cumulative traffic conditions projected to result with buildout of the City General Plan densities. As specified by the General

Plan, the roadway system within the City is predicted to provide LOS C or better operating conditions. Consequently, traffic impacts associated with development of the Specific Plan area are suggested to be less than significant at the project level.

Contrary to future traffic conditions projected in Roseville, regional traffic conditions are predicted to worsen as outlying areas surrounding the Sacramento metropolitan area continue to develop into "bedroom communities." Roadways which function as commuter routes such as Highway 50, Interstate 80, Interstate 5, and State Route 99 already experience congested conditions during daily commute periods. Continued growth of outlying communities, including Roseville, are anticipated to exacerbate this situation. Presently, solutions to the predicted traffic conditions have not been identified. It is likely that the ultimate solution will include a combination of measures including promotion and development of an efficient regional transit system, expansion and promotion of the park-and-ride program, implementation of flex time by local employers, and improvement of the regional roadway network.

Implementation of the NCRSP will inevitably contribute trips to the regional commute, thus aggravating the cumulative situation.

Air Quality

The Sacramento Air Quality Management Area (SAQMA), which includes south Placer County, is designated as a nonattainment area for ozone and also experiences localized violations of the CO and PM₁₀ standards. Peak-hour motor vehicle operations are largely responsible for the ozone and CO violations. As a component of the Sacramento Air Quality Plan, attainment of the ozone standard was predicted by December 1987, the date at which the air quality plan expired. Contrary to predictions, attainment of the ambient ozone standard was not achieved prior to expiration of the air quality plan and the SAQMA is still recognized as a nonattainment area. A new air quality plan anticipated to include more stringent control measures is being prepared. Although no plan is currently in place, measures identified under the now defunct plan are still in practice by local municipalities.

No substantial air pollution point sources are anticipated to locate within the North Central Roseville Specific Plan area. As discussed in the Air Quality section of this report, motor vehicle emissions are expected to produce the most substantial air quality impact associated with implementation of the Plan. The North Central Roseville Specific Plan contains measures to mitigate air quality impacts at the project level. These measures include development of a bicycle/pedestrian pathway network; construction of facilities to support extension of transit service; transit services to serve the Plan area; development of neighborhood-oriented commercial, business, and park land uses; and construction of an adequately sized and efficiently designed roadway system.

Although the Plan contains measures to minimize Plan-generated air quality impacts, the incremental generation of any additional pollutants will make future attainment of the ambient ozone standard more difficult. Therefore, the cumulative air quality impacts of the North Central Roseville Specific Plan will be significant and unavoidable.

Public Services

Water

The City has entitlements to 32,000 acre-feet per year (af/yr) of water through the Federal Bureau of Reclamation. In addition, the City recently negotiated for an option of an additional 10,000 af/yr from the Placer County Water Association. The Roseville Department of Public Works anticipates that 42,000 af/yr of water will be sufficient to accommodate cumulative water demand in Roseville.

The Roseville water treatment plant is currently being upgraded to a capacity of 24 mgd from 48 mgd. This doubling of the current plant capacity will allow the City to nearly double in size. When the upgraded facility nears 75 percent capacity, the Department of Public Works will evaluate an additional upgrade.

Expansion of the water treatment plant will require additional staff to operate the facility.

Wastewater

The existing wastewater treatment plant has a capacity of 12 mgd. The City has a proposal for expansion of the facility to handle an additional 6 mgd. An EIR will be prepared to address whether this will provide sufficient capacity for the ultimate buildout of Roseville and will identify options for future treatment and discharge.

Expansion of the wastewater treatment plant will require additional staff to operate the facility.

Solid Waste

The 320-acre Placer County landfill has a remaining life span of approximately 40 years. Negotiations are underway to acquire additional acreage which will increase the life of the landfill by 15 to 20 years. In addition, a resource recovery program to recycle 20 percent of landfill materials is being planned.

Additional trucks and manpower will be required as the City builds out. The Department of Public Works maintains one truck per 3,000 homes and one back-up truck for each four trucks on the road. The City maintains one driver per truck.

Law Enforcement

The Roseville Police Department currently provides a ratio of approximately 1.28 officers per 1,000 residents. The staffing ratio may become greater as population and business densities increase.

The Police Department anticipates that additional officers may be required as a result of cumulative growth. Substations are not anticipated; however, community service operations may be developed.

Fire Protection

The Roseville Fire Department anticipates that planned facilities will be adequate to provide services to the City.

If population densities increase, the Fire Department may decide to increase the number of trucks per station and number of fire fighters per 1,000 people.

Schools

The City is served by the Roseville City School District and the Roseville Joint Union High School District. At this time, all seven schools serving K-8 students are impacted, as well as the two high schools.

The Roseville City School District has plans for the construction of a junior high school and four elementary schools. Two of the elementary schools and the junior high school are located within the North Central Specific Plan area. However, funding for these schools is limited and state financing may not be available until 1990. The Districts currently rely on developer fees and state financing to assist with funding and will continue to do so.

Parks and Recreation

Buildout of the City will require additional parkland and recreation facilities. The Roseville Department of Parks and Recreation has indicated the amount of parkland is sufficient to meet City standards. Additionally, the Plan provides for considerable areas of open space for passive recreation (i.e., walking, bicycling, etc.).

Additional staff will be required to sustain the existing level of maintenance. The Department anticipates the largest staffing increase to be park maintenance employees. This is due to the increase in high-maintenance, low-use areas, such as median strips and sound wall landscaping.

Fees for maintaining setbacks, medians, and vernal pool preserves could come from the formation of lighting and landscaping districts, homeowners associations, or maintenance districts.

Libraries

Currently, the main library in downtown Roseville has more cardholders than can optimally be served by the facility. Three additional branches are proposed to accommodate planned growth. These will be located in the Northeast, Northwest, and North Central Plan areas.

Natural Gas

PG&E supplies natural gas service for the City. Although buildout of the City will create a substantial increase in the demand for natural gas, PG&E has indicated that cumulative growth in the Roseville area can be served with existing and additional transmission lines.

Electric Service

The Roseville Electric Department has indicated that there are sufficient resources to meet the forecasted load through the early 1990s. The Department has contracts and agreements in place that will enable Roseville to meet additional load growth forecasts over the next 15 to 20 years.

Additional substations will be necessary to accommodate growth in the City and will be constructed on an as-needed basis.

Telephone Service

Telephone service, including infrastructure, will be provided in conjunction with the development of individual projects. No problems are anticipated in providing additional telephone services in Roseville.

Visual Quality

As development of the various Specific Plans is undertaken, a gradual shift will occur from a rural, open landscape to one characterized by urban/suburban uses. Broad range and long-range vistas will be reduced or eliminated.

The change from open space grasslands or oak savannah/oak forest will be most pronounced in those areas which are not yet developed while infill development will further reduce these resources.

Fiscal

The majority of municipal revenues in Roseville are collected from taxes. Property taxes and sales taxes are the largest contributors. These revenues are affected by new commercial and housing development. Revenue from construction permits and other building-related fees also help offset City operations.

Proposed cumulative development exhibits a land use mix similar to that for the North Central Roseville Specific Plan. Slightly over half of all acreage proposed would be commercial development, with the remainder devoted to residential use. New housing residents could be expected to spend as much per capita within the City as existing

residents, thereby generating both property and sales taxes. Given this proposed mix of land uses, it could be expected that the fiscal effects of cumulative development would have a positive impact to the City of Roseville's municipal funds.

4.5 ALTERNATIVES TO THE PROPOSED ACTION

Potential alternatives to the adoption of the NCRSP include the "No Project" alternative, developing a portion or all of the Plan at another location, rearranging the proposed land uses within the Plan area, and changing of the proposed land uses within the area.

4.5.1 No Project

General

Implementation of the "No Project" alternative would produce no changes from the present condition of the Plan area. If fully implemented, this alternative would eliminate all of the impacts associated with implementation of the Plan as identified in this report including vernal pool disturbance, wildlife habitat reduction, cumulative reductions in air quality, growth inducing impacts, etc., and must therefore be considered the environmentally superior alternative. Failure to implement the NCRSP may significantly affect planned infrastructure development for Northwest and Northeast Specific Plans. However, considering the current rate of growth in the surrounding region, favorable economic conditions, recent land use decisions on contiguous and surrounding properties, and the current market value of the land, the "No Project" alternative cannot be considered as a realistic long-term land use for the Plan area.

Traffic

The traffic study prepared for this EIR (Appendix I) considered the "No-Project" alternative. In this case, the "No-Project" alternative assumed that no development would occur in either the North Central Specific Plan Area or the rest of the Plan areas. This analysis is included in its entirety, directly from the traffic report.

The roadway system planned to support expected year 2005 development includes several roadways proposed as part of the Specific Plans in North Central, Northwest, Northeast and Southeast Roseville. These roadways include Roseville Parkway both east and west of I-80, Pleasant Grove Boulevard, the Eureka Road extension to Atlantic Street, and several minor arterials and collectors. The study has assumed that if the four Roseville Specific Plan areas did not develop, many of these roadways and roadway connections would not be constructed.

The traffic impacts associated with this case, i.e., no development of the four Roseville Specific Plan areas and the exclusion of the roadways (listed in the previous paragraph) supporting these Specific Plan areas, and expected 2005 development elsewhere, were evaluated. In this scenario, the only portion of Roseville which would experience substantial growth by the year 2005 would be the North Industrial area, with approximately 15,000 employees.

Intersections - Impacts

Since four intersections in Roseville (Douglas and Sunrise, Douglas and Rocky Ridge, Cirby and Riverside, and Cirby and Sunrise) are currently operating at worse than LOS C, and few new facilities would be constructed to reduce traffic pressures on them, their peak period traffic performance would worsen.

In determining the future service levels of the existing Roseville intersections, it was assumed that the major arterials in Roseville today (Douglas, Sunrise [south of Cirby], and Cirby) would be widened to six lanes by year 2005, and that the major intersection approaches would have the maximum number of lanes feasible. (This analysis was prepared prior to revision of the Cirby Way widening from six lanes to five lanes where right-of-way permits.) The only exception to this would be at the Douglas and Sunrise intersection, where physical and right-of-way constraints prevent the widening of the intersection to two left-turn lanes, three through lanes, and one right-turn lane per approach.

The intersections of Cirby and Sunrise and Douglas and Rocky Ridge would operate at LOS C or better after the full intersection widening listed above.

However, two intersections in Roseville would operate at LOS D or worse in year 2005 without the development of the four Roseville Specific Plan areas after the at-grade improvements listed above. These intersections are Douglas and Sunrise at LOS E (v/c ratio = 0.99) and Cirby and Riverside at LOS D (v/c ratio = 0.83).

Intersections - Mitigations

The v/c ratios at these two intersections would be brought to less than 0.80 if grade separated improvements, such as an urban interchange, were constructed. A description of an urban interchange is presented in Appendix B. With grade separation, Douglas and Sunrise would operate at 0.61 and Cirby and Riverside at 0.69.

Freeways

The amount of traffic growth on I-80 and the 65 Bypass in the Roseville area is only partially dependent upon the level of development in Roseville. Unlike intersections which primarily serve local and subregional travel, regional facilities such as I-80 and the 65 Bypass serve a substantial portion of through travel, or trips travelling between points north of Roseville (such as Rocklin, Lincoln, and Auburn) and points south of Roseville (primarily Sacramento). Since under expected 2005 conditions, these areas surrounding Roseville are expected to grow steadily, so too are the traffic volumes on I-80 and the 65 Bypass.

The number of lanes which would be required on I-80 and the 65 Bypass were computed using the following freeway capacities:

- 2,000 vehicles per lane for the mainline
- 1,700 vehicles per lane for a linear ramp
- 1,500 vehicles per lane for a loop ramp

The number of lanes required on I-80 and the 65 Bypass assuming no development of the four Roseville Specific Plan areas and expected 2005 development elsewhere are shown in Figure V-1. On the 65 Bypass, peak hour traffic demand volumes warrant two lanes per direction from Blue Oaks Boulevard to Harding Boulevard and three lanes per direction from Harding Boulevard to I-80. The demand volumes indicate the need for a three-lane ramp from the 65 Bypass to southbound 65 Bypass and a three-lane ramp connecting northbound I-80 to the 65 Bypass. Interstate 80 would require three lanes per direction from the 65 Bypass to Taylor Road, four lanes per direction from Taylor Road to Atlantic Street, and three lanes per direction from Atlantic Street to south of Douglas Boulevard.

4.5.2 Off-Site Development of the Proposed NCRSP

Closely related to the "No Project" alternative, is development of the Specific Plan elsewhere in the vicinity. In addition to the proposed site, sufficient space is available to implement a similar Plan in only one area within the jurisdiction of the City of Roseville. This is the urban reserve corridor immediately west of the proposed NWRSP area.

Development of the Specific Plan within the corridor along the western edge of the City poses several problems. First and most obvious, is the irregular shape of this area. It is not practical to assume that the entire Specific Plan could be arranged to fit into a corridor approximately one mile wide. Development within this constraint would severely hamper the ability of the planner to design the Plan to provide close convenient motor vehicle or bicycle/pedestrian connections to major land uses. The "corridor" character of this area would require elongating the Plan, resulting in a substantial distance between land uses at opposite ends. Such a design would not be conducive to efficient land use planning and internal circulation. Further, development of the Plan in the corridor would not be contiguous with existing development in Roseville. The currently proposed site is situated adjacent to the developed portion of Roseville on the south and adjacent to a developing portion on the west. Relocation of the proposed commercial, business professional, and light industrial land uses farther to the west into this corridor area would pose significant traffic congestion problems, as much of the land use proposed is oriented to the Highway 65 transportation corridor, which includes the Bypass, its four interchanges, and associated arterial roadways.

Conceivably, several areas within the unincorporated portion of Placer County may be able to accommodate all land uses proposed for the NCRSP. Generally speaking, however, all of these tracts pose similar constraints to development. Most notably, it is contrary to Placer County Policy and the goals of the South Placer Policy Plan to promote extensive urban development in the undeveloped portion of the County, at least until such development constitutes contiguous growth outward from an already developed area. Since the northern and western portions of Roseville have not yet developed to the municipal limit, implementation of the proposed land uses on a site in this area of the County would not be contiguous with existing growth, and would constitute "leapfrog" development. Leapfrog development of this project into Placer County would complicate extension of public services and facilities, create potential land use compatibility conflicts with surrounding rural and agricultural land uses, and provide the impetus for additional urban growth in the unincorporated area of the County.

4.5.3 Off-site Development of Portions of the Specific Plan

As discussed above, the feasibility of relocating the entire Specific Plan to an alternate site within the jurisdiction of the City of Roseville, is extremely limited. A more realistic approach to addressing offsite alternatives, as required by CEQA, would be to examine the offsite relocation of individual land uses which are identified in the Plan. Alternatives which are addressed in this report include:

- ⌘ Relocation of residential, commercial, business and professional, or light industrial uses from the North Central Plan area to the urban reserve area of the NWRSP area.
- ⌘ Relocation of the above mentioned land uses to the Urban Reserve area of the NERSP area.
- ⌘ Relocation of NCRSP light industrial uses to the North Industrial Plan area or the Placer Lakes Industrial Park.
- ⌘ Relocation of one or both of the regional commercial sites from the NCRSP area to the Placer County portion of Stanford Ranch area or to the City of Rocklin.

NWRSP Urban Reserve Option

An alternative to the development of land uses identified in the NCRSP would be the relocation of some of these uses to the area identified as Urban Reserve in the NWRSP area. The relocation of these uses would have to be consistent with designated land use goals of the Roseville General Plan.

The NWRSP is located to the southwest of the NCRSP (see Figure 1-2). The urban reserve areas of the NWRSP are located along the western boundary of the Plan area. Land use associated with development of the NWRSP is almost exclusively residential and commercial. As a result, the designation of the urban reserve for development of light industry or regional commercial may be inappropriate without the development of adequate buffers and considerable modification to existing and planned roadways in the immediate area. Additionally, the NWRSP area lacks direct access to I-80 or Highway 65.

Residential/commercial development of the urban reserve may also be problematic due to the slow buildout period currently planned for the NWRSP. Early development in the urban reserve, prior to the development of the rest of the Plan area, may be precluded due to the problems inherent with leapfrog development.

NERSP Urban Reserve Option

The NERSP area is located north of Douglas Boulevard and east of I-80 (see Figure 1-2). The area has considerably better access to I-80 than the NWRSP area discussed above, and is located along the proposed route of the Roseville Parkway. The

NERSP identifies a mix of designated land uses within the Plan area including residential, commercial, business/professional, agricultural, open space, and urban reserve. The areas designated as urban reserves in the NERSP are located in the northeast corner and along the north and east boundaries of the Plan area. The Plan suggests that the urban reserves will be developed eventually but identifies several constraints to development in these areas. These constraints primarily involve the expressed need for protection of the Miners Ravine and Secret Ravine Creeks stream systems and oak woodland associated with these systems. Additionally, several vernal pool sites occur within the urban reserve.

In accordance with NERSP policy, development of Plan area urban reserves will require:

- ✱ The establishment of buffer zones and the minimization of noise generators along Miners Ravine and Secret Ravine Creeks.
- ✱ A minimal amount of urban encroachment into oak woodland areas.
- ✱ The establishment of a vernal pool reserve to ensure the retention of a representative vernal pool complex north of Miners Ravine.
- ✱ The construction of two bridges across Miners Ravine.

In light of these constraints within the urban reserve and considering the proposed land uses for the rest of the NERSP, the NERSP urban reserve area would best accommodate the relocation of residential land uses from the NCRSP area. Business/professional and commercial uses could be accommodated but would be less compatible with residential areas which border the urban reserve. Additionally, commercial and business/professional development may provide less flexibility to accommodate the development constraints noted above.

Industrial development in the NERSP urban reserve would be incompatible with proposed land uses.

North Industrial Plan and Placer Lakes Industrial Park Option

Relocation of NCRSP industrial use would eliminate potential land use conflicts between industrial and residential uses which may arise as a result of implementation of the proposed NCRSP.

Planned industrial uses in the NCRSP may be accommodated offsite through an expansion of the North Industrial Plan area or by relocating the uses to the proposed Placer Lakes Industrial Park, west of Stanford Ranch.

Relocation of NCRSP industrial uses to the North Industrial Plan area would require expansion of the North Industrial Area General Plan designation northward in order to accommodate Roseville General Plan goals for future industrial use. The expansion would require a General Plan Amendment and would likely take place to the north of the existing North Industrial Plan area. The feasibility of expansion of the North Industrial Plan area may be limited for the following reason. It is

anticipated that the buildout of the Plan area will be very slow. In fact, full buildout of the area may never occur. Any development north of the Plan area, therefore, would require the extension of services and infrastructure through undeveloped portions of the Plan area, resulting in leapfrog development.

The Placer Lakes Industrial Park is a proposed development located in unincorporated Placer County just west of Stanford Ranch and Highway 65. Relocation of proposed NCRSP industrial uses would eliminate approximately 195 acres of light industrial use from the Roseville General Plan area. This action would eliminate potential revenues to the City from this use. The extent of this loss would depend on what type of development would occur on the sites now proposed for light industry.

Alternative Offsite Locations for Proposed Regional Commercial Uses

Although two sites are proposed for regional commercial development in the NCRSP, it is possible that only one or neither will actually be developed as a regional mall. If both regional commercial site(s) are eliminated from the NCRSP, it is reasonable to assume that this use will be applied to another area in the vicinity of the NCRSP, even though this assumption is not based on a specific market analysis. Two potential sites for alternative offsite locations for regional commercial use include Stanford Ranch adjacent to Highway 65, or the City of Rocklin adjacent to I-80 and north of Sierra College Boulevard. Based on the demographics of both areas, and considering the need for good access to I-80, the most reasonable alternative would appear to be the Rocklin site. The City of Rocklin, in fact, is currently in the process of reviewing environmental documentation assessing the impacts of a regional mall on that site.

Elimination of Some or All Regional Commercial Use from the NCRSP

Elimination of regional commercial uses now proposed for the NCRSP area will have certain consequences for future development of parcels 35 and 36.

It is unlikely, in light of future planned development, that parcels 35 or 36 would remain undeveloped if regional commercial uses were eliminated from one or both of the parcels. Because of the location and physical characteristics of parcels 35 and 36, it is assumed that mixed commercial (50 percent retail commercial, 50 percent business/professional) would be an appropriate alternative to regional commercial use. Development of parcel 36 must consider the potential impacts on vernal pools and protected plant resources.

Option 2 is considered as an alternative to planned development because even with the creation of the vernal pool preserve on parcel 95, adequate on-site protection of vernal pool resources, including the endangered *hyssop*, may be incompatible with the development of a fiscally viable regional commercial center on parcel 36. For purposes of evaluating the relative impacts of Option 2, and because it is considered highly unlikely that parcel 36 could remain undeveloped, it is assumed that with the elimination of regional commercial use on parcel 36, 74 acres of parcel 36 would be developed for mixed commercial/business-professional use and the remaining

acreage would be used in combination with parcel 95 to form approximately 60 acres of preserve. The preservation of 60 acres on parcels 36 and 95 was chosen to provide an environmentally conservative approach to development on parcel 36 by creating the potential for additional protection of on-site vernal pool areas and the watershed to those pools, while at the same time affording additional protection to oak woodland and the watershed associated with Antelope Creek. The economic feasibility of developing 74 acres of mixed commercial on parcel 36 has not yet been determined.

An expansion in the acreages set aside for these NCRSP preserves, accompanied by reduced intensities of surrounding land uses, would constitute an environmentally preferable alternative to the proposed Plan. A reduction in land use intensity, however, would reduce the amount of revenues to the City to support infrastructure development within the Plan area.

For purposes of this alternatives discussion, two options are assessed to address the possible elimination of one or both of the regional commercial sites identified in the NCRSP. These are:

1. Parcel 35 would contain approximately 92 acres of mixed commercial use and parcel 36 would contain 116 acres of mixed commercial.
2. Parcel 35 would contain approximately 92 acres of regional commercial use. Parcel 36 would contain approximately 73 acres of mixed commercial use and 43 acres of vernal pool preserve. The 43 acres would be in addition to the 14.2 acres preserved in parcel 95 (see "Increased NCRSP Nonresidential Use" discussion below).

The potential impacts on local traffic resulting from the above two options were assessed for year 2005 with buildout of all four Specific Plan areas.

Table 4-1 lists the intersections which would operate at v/c ratios of 0.80 or higher under the proposed NCRSP and each of the above options.

Under the proposed NCRSP, the first 11 intersections in the table would operate with v/c ratios of 0.80 or higher. These intersections could be mitigated to v/c ratios of 0.79 or better by at-grade improvements, TSM, or grade separated improvements.

Under option 1, in addition to the first 11 intersections, five more would operate at v/c ratios of 0.80 or higher. All of these intersections, however, could be mitigated to below 0.79.

Under option 2, four intersections would operate at v/c ratios of 0.80 or more in addition to the first 11 intersections. After mitigations, two intersections would continue to operate in the Level of Service (LOS) "D" range. They are Cirby and Sunrise, and Harding and the connector ramp to Atlantic.

Fiscal impacts of the two options were also addressed.

TABLE 4-1

INTERSECTIONS WITH UNMITIGATED V/C RATIOS OF 0.80 OR MORE
2005 WITH BUILDOUT OF FOUR ROSEVILLE SPECIFIC PLANS

	Proposed NCRSP (With Mitigation)	Proposed NCRSP (Without Mitigation)	Option 1	Option 2	Parcel 101 Alternative *
Douglas/Sunrise	0.75	1.39	1.31	1.42	1.43
Cirby/Sunrise	0.79	0.83	0.80	0.86	0.86
Roseville Pkwy/Taylor	0.73	1.20	1.18	1.25	1.19
Roseville Pkwy/Harding	0.73	1.00	1.07	1.05	1.07
Cirby/Riverside	0.78	0.91	0.91	0.95	0.96
Eureka/Taylor	0.78	0.99	0.90	0.93	0.94
Roseville Pkwy/Pl. Grove	0.60	0.86	0.87	0.87	0.89
Douglas/Rocky Ridge	0.75	0.97	0.99	1.00	0.94
Lead Hill/Sunrise	0.75	0.89	0.90	0.88	0.89
Roseville Pkwy/Sierra College	0.74	0.86	0.85	0.85	0.87
Harding/Rte 65 S ramps	0.79	0.85	0.85	0.82	0.92
Lead Hill/Rocky Ridge	N/A **	N/A **	0.84	0.83	N/A
Harding/connector ramp to Atlantic	N/A	N/A	0.81	0.84	N/A
Foothill/Junction	N/A	N/A	0.80	N/A	N/A
Foothill/Pl. Grove	N/A	N/A	0.81	N/A	N/A
Junction/Washington	N/A	N/A	0.82	0.82	0.82
Washington/Pl. Grove	N/A	N/A	N/A	0.83	0.85
Eureka/Douglas	N/A	N/A	N/A	N/A	0.82
Pl. Grove/Rte 65 S ramps	N/A	N/A	N/A	N/A	0.85

* The "Parcel 101 Alternative" involves the relocation of one regional mall site to parcel 101. This alternative is discussed in the following section.

** N/A = Not above 0.80

SOURCE: Fehr and Peers, June 1989.

Relative to base conditions set forth in the NCRSP, implementation of options 1 or 2 would present severe fiscal impacts to the City of Roseville. Under Option 2, commercial property tax revenue would be approximately \$204,700 less than the predicted base case amount, property transfer tax would be \$5,800 less, and sales tax revenue would be \$873,800 less. Total net revenue to the General Fund would be \$913,800 instead of \$1,998,100, which represents a cut of more than half. These potential reductions result from taking 43 acres out of the development package and downgrading the remaining 73 acres from regional mall to ordinary commercial and business offices. It is worth noting that in the "mixed use" case it is assumed that 50 percent is commercial retail and 50 percent is business offices, the latter of which generates no sales tax revenue.

Under Option 1, the potential reductions from the base case are even more severe than Option 2 because of elimination of the Regional Mall sales tax revenue and replacement by ordinary commercial and business offices. Sales tax revenue would be \$440,100 lower than Option 2 and the General Fund net revenue would be approximately \$476,400.

4.5.4 Development of Different Land Uses within the Specific Plan

To identify reasonable alternatives in this category, it is necessary to examine land use planning on a citywide scale. Land uses recognized by the Roseville General Plan can generally be divided into agricultural and open space uses, residential and related uses, commercial and business professional uses, and industrial land uses. The Roseville General Plan establishes the relative amounts of these various land uses throughout the City. For the same reasons as identified in the "No Project" scenario, leaving the Plan area in low intensity agricultural use is not a feasible alternative. It is recognized at the most fundamental planning levels, that many land uses are not compatible with one another. Consequently, efficient planning incorporates a separation of incompatible land uses. Consideration of existing land uses which surround the NCRSP is necessary to identify realistic alternatives. In this instance, established land use has to a large extent already determined the land use configuration within the Plan area and, consequently, the proposed NCRSP is an effort to develop the site within the existing constraints. The Specific Plan represents a planning effort which provides a transition between existing low-density residential land use to the south, the established Highway 65 Bypass corridor, existing industrial land use in Placer County, and existing single family residential land use in Rocklin.

As proposed, the NCRSP is a transition from single-family housing situated adjacent to the existing neighbors in Roseville to multifamily housing, to business-professional/commercial to light industrial. Each of these general land use categories serves a purpose in the overall planning scheme. Consequently, alternatives which incorporate a greater or lesser amount of a given land use must be evaluated on a larger scale against the overall feasibility of the Specific Plan.

Increased NCRSP Residential Use

One alternative to the proposed NCRSP would be to increase the proportion of residential land use within the Plan and concurrently reduce the nonresidential land uses. The major objection to this is the extensive amount of mitigation which would be required to protect the residential uses from the impacts emanating from the Highway 65 Bypass. The proposed location of commercial, industrial, and/or B-P land uses along the Bypass presents a much more logical planning scheme with adequate opportunity for mitigation.

Increased NCRSP Nonresidential Use

Increasing the amount of light industrial, B-P, or commercial land use within the Plan area is another alternative to be considered. However, as discussed elsewhere in this report, there is no demonstrated need for additional nonresidential land uses of this type. Rather the need is for residential uses to house employees of the projected employment generating land uses. It is feasible to consider development of some of these land uses in the area north of the Bypass, however, development in that area prior to infill of the area to the south would not provide contiguous growth outward from the presently developed areas of the City, and would complicate orderly development and extension of roadways, sewer lines, electrical lines, etc. Consequently, it does not seem logical to propose development of that area until such time that facilities are developed south of the Bypass.

Another alternative to be considered which would also result in an increase in proposed NCRSP non-residential use, concerns the relocation of regional commercial use on parcel 36 in order to accommodate greater on-site protection of vernal pool resources. As described in the Vegetation and Wildlife section of this report, several measures have been incorporated into the NCRSP to protect intermittent wetland areas in the Plan area. These include: 1) preserves within the urban reserve parcel within and adjacent to the intermittent streams; 2) proposed vernal pool reserves in the south central portion of the Plan area; and 3) a preserve within parcel 36 on which are located known populations of a California Department of Fish and Game listed endangered plant (Boggs Lake hedge hyssop).

Even with the creation of the vernal pool preserves noted above, adequate on-site protection of vernal pool resources including the endangered Boggs Lake hedge hyssop may be incompatible with the development of a fiscally viable regional commercial center on parcel 36. An alternative to the proposed development of 116 acres of regional commercial use on that parcel would be to relocate that use to parcel 101 of the NCRSP east of Pleasant Grove Boulevard and adjacent to Highway 65. This area is currently proposed for use as urban reserve. For purposes of evaluating the relative impacts of this alternative, and because it is considered highly unlikely that parcel 36 could remain undeveloped, it is assumed that with the relocation of regional commercial use to parcel 101, 74 acres of parcel 36 would be developed for mixed commercial/business-professional use and the remaining acreage would be used in combination with parcel 95 to form approximately 60 acres of vernal pool preserve. The preservation of about 60 acres on parcels 36 and 95 was chosen to provide an environmentally conservative approach to development on

parcel 36 by creating the potential for additional protection of on-site vernal pool areas and the watershed to those pools, while, at the same, time affording additional protection to oak woodland and the watershed associated with Antelope Creek.

Implementation of this alternative would represent an increase in land use intensity by increasing mixed commercial use relative to the proposed NCRSP. This alternative would also result in the early development of 116 acres of land currently designated as urban reserve under the proposed NCRSP. The beneficial impacts of this alternative include greater protection of high value vernal pool resources on parcel 36 and reduced potential for degradation of Antelope Creek, as well as higher projected net annual revenues to the City (\$2,258,500 compared to \$2,028,000 for the proposed NCRSP).

Under this alternative, four intersections would operate at v/c ratios of 0.80 or greater in addition to the 11 intersections identified for the proposed NCRSP (see Table 4-1). Of the four additional intersections, all could be mitigated to LOS "C" or better with either at-grade improvements or TSM. Of the first 11 intersections, two would continue to operate at LOS worse than "C" after mitigation. They are Cirby and Sunrise and Route 65 and South ramps at Harding Boulevard.

Increased revenues and traffic associated with this alternative directly result from increased land use intensity associated with 73 acres of additional mixed commercial relative to NCRSP base conditions.

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