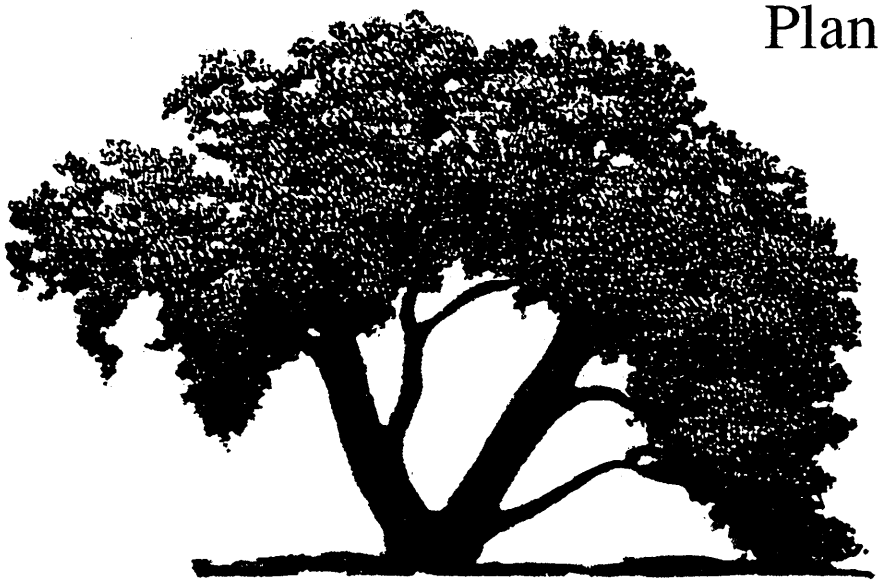
Final

Del Webb Specific Plan

Mitigation Monitoring Plan



Prepared for:

The City of Roseville

316 Vernon Street
Roseville, CA
95678

December 1993

DAMES & MOORE

FINAL
MITIGATION MONITORING PLAN

DEL WEBB SPECIFIC PLAN PROJECT
ROSEVILLE, CALIFORNIA

DECEMBER 1993

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INTRODUCTION

Background

Section 21081.6 of the California Public Resources Code requires public agencies to "adopt a reporting and monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment." This monitoring program is required for the Del Webb Specific Plan Project (Proposed Project) because the Environmental Impact Report (EIR) for the project has identified significant adverse impacts, and mitigation measures have been identified to mitigate those impacts. Adoption of this mitigation monitoring plan shall occur prior to, or concurrently with, adoption of the Proposed Project for which the plan has been developed. All mitigation measures and the plan requirements would be included as conditions of project approval. The Applicant shall be responsible for all mitigation costs and implementation of mitigation measures unless otherwise stated.

Purpose of the Mitigation Monitoring Plan (MMP)

The purpose of this plan includes the following:

- to ensure that mitigation measures are implemented;
- to provide feedback to agency staff and decision makers about the effectiveness of the measures;
- to provide learning opportunities for improving mitigation measures on future projects; and
- to identify the need for enforcement action before irreversible environmental damage occurs.

Monitoring Process

Existing monitoring mechanisms are in place which assist the City of Roseville in meeting the intent of CEQA. These include, among others, monitoring of Specific Plan implementation and annual monitoring of compliance with the Development Agreement. These existing monitoring mechanisms eliminate the need to develop separate monitoring processes for each mitigation measure. Those mitigation measures which are monitored through existing City mechanisms are so indicated on the Mitigation Monitoring Checklist as follows:

G.P. - Indicated on the General Plan
S.P. - Indicated on the Del Webb Specific Plan

D.G. - Identified on the Del Webb Design Guidelines
D.A. - Monitored annually during review of the Development Agreement
T.P. - Condition of Del Webb's tree permit
T.M. - Indicated on Del Webb's tentative map
U.P. - Condition of Del Webb's use permit

Those measures which require separate monitoring processes are monitored through this document, and indicated on the checklist as "MMP" (with corresponding page numbers where the monitoring program can be found in this document). City responsibilities are briefly described below and a sample monitoring form is provided in Appendix A.

The Roseville Planning Department (project planner) will monitor tree preservation and project design mitigation measures. The Roseville Public Works Department (construction inspector) will be responsible for monitoring construction-related mitigation measures, such as erosion control. Other measures will be monitored by other divisions of the Roseville Community Development Department.

The Project Applicant/contractor will be responsible for preparing brief monitoring letters to provide project updates. The frequency of these letters will vary during the course of the project and will be determined by the City (Planning, Public Works, and Community Development Departments).

The purpose of the letters is to assist City staff in keeping abreast of the complicated construction process and any problems that have arisen in the previous week. The Planning, Public Works, and Community Development Departments will review the letters, verify the conditions, and take action, as necessary.

The Community Development Department may choose to prepare a final summary of project monitoring upon completion of all mitigation measures. This report would be used to refine mitigation measures in the future.

Project Location

The Proposed Project would be located in Placer County approximately 19 miles northeast of Sacramento (Figure 1). The site is on approximately 1,200 acres within the City of Roseville's West Urban Reserve area (Figure 2). It is bounded by Fiddyment Road to the west; Foothills Boulevard is located approximately one and one-half miles to the east of the eastern project boundary. The northern and southern edges are defined by the planned extensions of Blue Oaks Boulevard and Pleasant Grove Boulevard, respectively. Baseline Road is located one mile to the south.

Project Description

The site is roughly rectangular in shape, and is currently undeveloped except for one single-family residence. The community would be limited to adults. In each unit, at least one resident must be 55 years of age or older; no one under age 45 would be permitted to live within the Proposed Project. It would be similar in concept to other communities built by the Applicant

in Phoenix, Tucson, Las Vegas and Palm Springs; however, it is the Applicant's first non-desert-type project and has been designed to complement the surrounding foothills area.

The Proposed Project would consist of 3,500 dwelling units at an average density of 5.2 dwelling units per acre (Figure 3). Residential areas would be subdivided into single-family neighborhoods, each containing a mix of housing lot sizes and types. While conventional single-family detached and attached halfplex units are the predominant dwelling unit types proposed, up to 64 units of small lot or clustered attached single-family residential units (halfplex units) and 100 age-restricted multi-family rental housing units would be included. The rental housing would not be built by the Applicant.

The Proposed Project includes two or three community commercial centers. Two of these would be located on the northwest and southwest corners of the Proposed Project site (10.6 and 12.3 acres, respectively). An optional interior neighborhood commercial center (3 acres) could also be included.

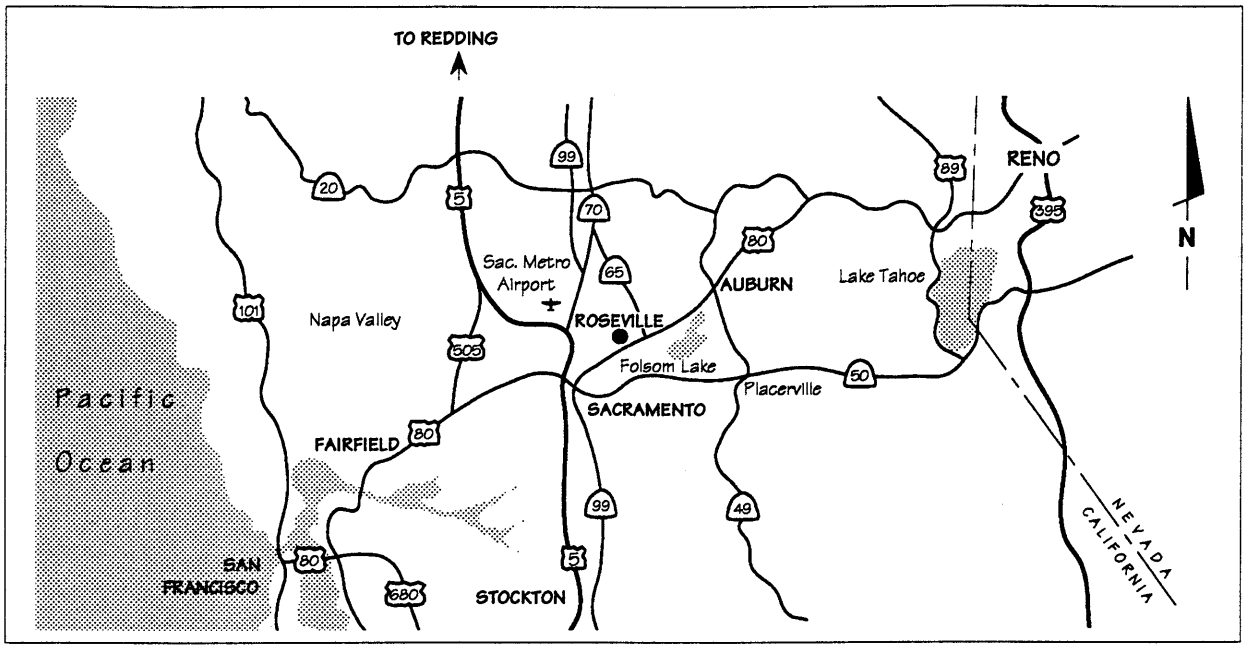
The Proposed Project would include 27 holes of golf, a homeowner's association recreation center offering a variety of recreational and service-related opportunities, and public parks and park preserve areas. The park preserves would provide protection and mitigation for natural resources occurring on the site, especially wetlands and vernal pools, as well as opportunities for passive recreation. Other parks would provide opportunities for more active recreation.

The Proposed Project would also include designated sites for a religious facility, a fire station, and an electric substation.

Several roadways would be extended or improved as part of the Proposed Project. Blue Oaks Boulevard would be constructed onsite from Fiddyment Road to the northeastern site boundary (requiring annexation of a small portion of Placer County), and offsite from the eastern boundary to Foothills Boulevard. Fiddyment Road would be reconstructed as a two-lane roadway, using the existing centerline as the western edge of pavement; it is proposed that reservation for adding an additional two lanes, when needed to accommodate future traffic needs, be planned to the west. This would require annexation of a small strip along the western right-of-way now in Placer County. Pleasant Grove Boulevard would be extended from its present terminus, west to Fiddyment Road.

The Proposed Project would be built in phases over eight to 10 years. Construction is anticipated to begin in the spring of 1994.

Mitigation measures to reduce or avoid adverse impacts of this project are summarized in Appendix B.



SOURCE: Wade Associates

REGIONAL LOCATION MAP

City of Roseville
Del Webb Specific Plan EIR
Roseville, California

10026-028-001

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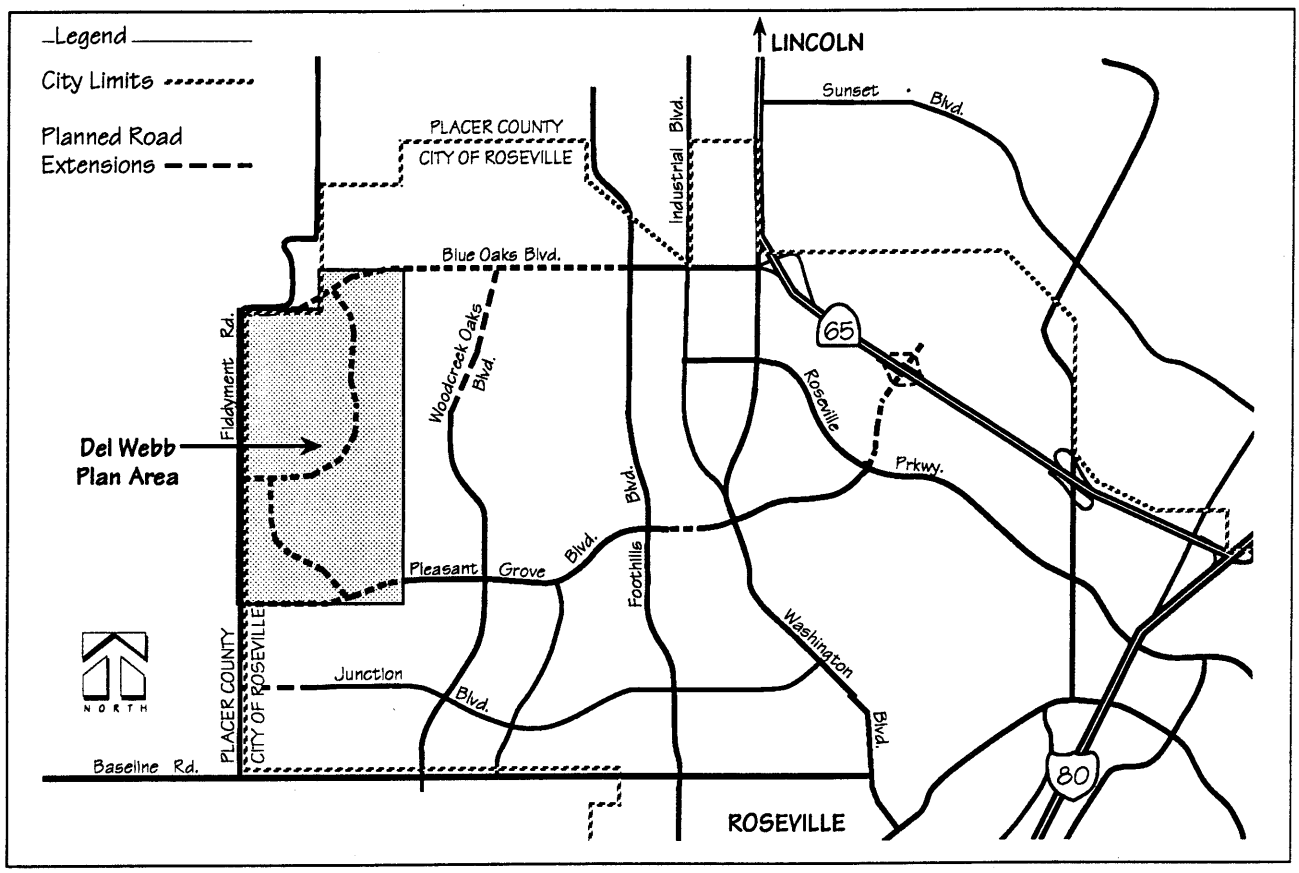
FIGURE 1



KEY

City Limits

Planned Road Extensions

SOURCE: Wade Associates

LOCAL AREA MAP

City of Roseville
Del Webb Specific Plan EIR
Roseville, California

10026-028-001

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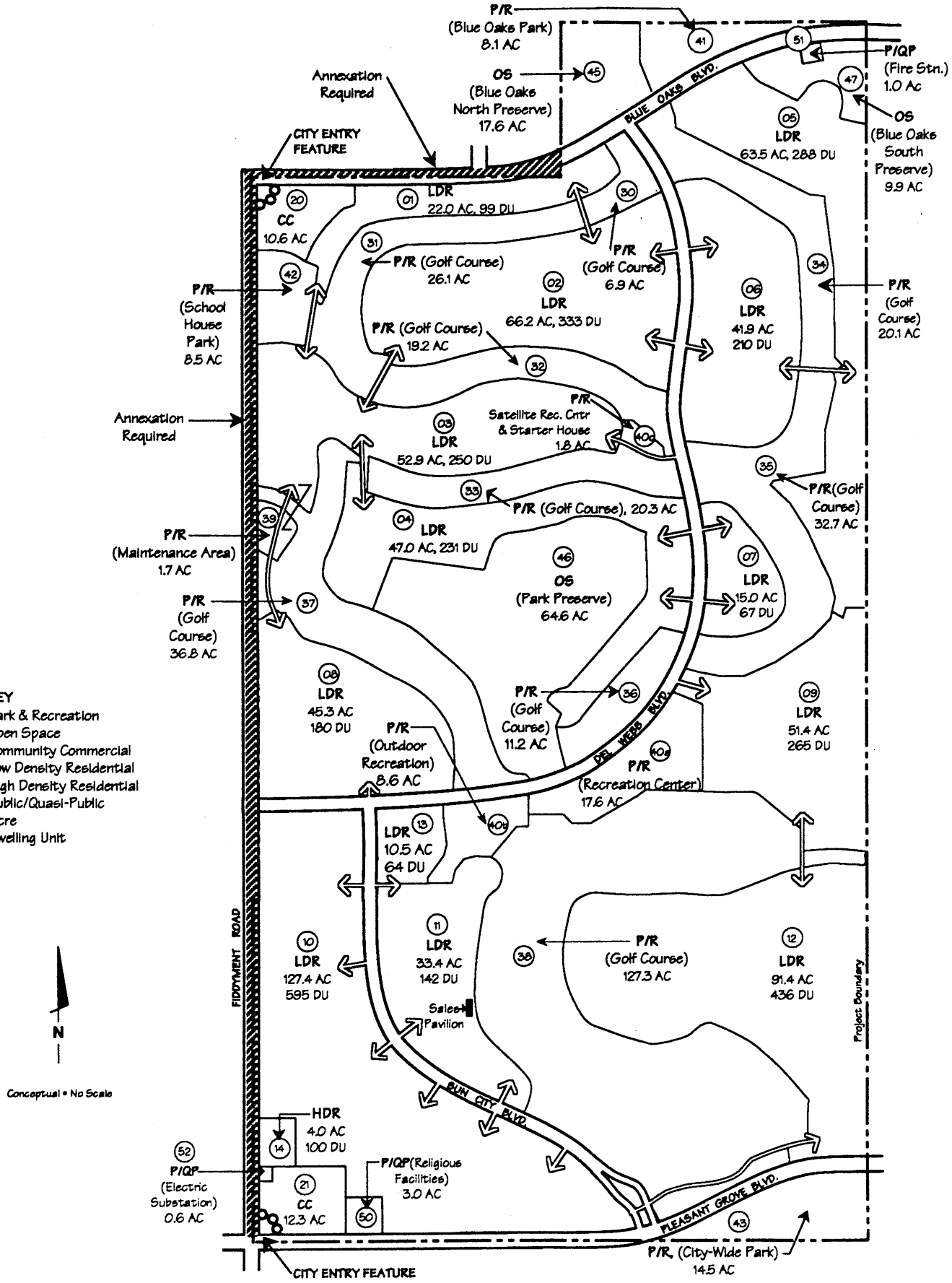
FIGURE 2



CONCEPTUAL LAND USE PATTERN

SOURCE: Wade Associates

City of Roseville
Del Webb Specific Plan EIR
Roseville, California

10026-028-001

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FIGURE 3

MITIGATION MONITORING CHECKLIST
DEL WEBB SPECIFIC PLAN

Project Phase:

Form Initiated By:

Date:

GP - General Plan; SP - Specific Plan; DG - Design Guidelines; DA - Development Agreement; TP - Tree Permit; TM - Tentative Map; UP - Use Permit; MMP - Mitigation Monitoring Plan

MONITORING MECHANISM	MONITOR INITIALS	DATE COMPLETE	MITIGATION NUMBER	MITIGATION MEASURE
Pre-Construction Measures				
SP,DG,TM	_____	_____	L-A	Provide buffers, a landscape corridor and minimum rear lot setbacks along Fiddyment Road
GP	_____	_____	L-B	Adopt a General Plan Amendment revising land use allocations
DG,UP,TM	_____	_____	L-C	Implement Development Guidelines and Standards to minimize adjacent use conflicts
SP,DA,UP	_____	_____	PS-F	Provide onsite recycling drop-off location
DG,UP	_____	_____	PS-G	Include site safety design considerations
SP,DA,TM	_____	_____	PS-I	Allocate a one-acre site for future fire station
DA	_____	_____	P-A	Pay in-lieu fee toward City purchase of Parcel 75
DA; MMP: see page 9	_____	_____	T-A	Update transportation CIP to widen Fiddyment Road and Walerga Road at the intersection to provide two through lanes in each direction, separate left-turn pockets and an exclusive northbound right-turn lane
DA; MMP: see page 10	_____	_____	T-B	Update transportation CIP to provide a second northbound left-turn lane at the intersection of Washington Boulevard and Pleasant Grove Boulevard
DA; MMP: see page 11	_____	_____	T-C	Update transportation CIP to provide offsite extension of Junction Boulevard

MONITORING MECHANISM	MONITOR INITIALS	DATE COMPLETE	MITIGATION NUMBER	MITIGATION MEASURE
DA; MMP: see page 12	_____	_____	T-D	Update transportation CIP and traffic fees to include the Proposed Project
SP,DG,TM	_____	_____	T-E	Provide enhanced golf cart crossings
MMP: see page 13	_____	_____	T-F	Provide golf cart signage at community entrances
TM,UP	_____	_____	G-A	Implement soil protection policies
TM; MMP: see page 14	_____	_____	G-B	Prepare a master grading plan
TM; MMP: see page 15	_____	_____	G-C	Implement erosion control plan
TM; MMP: see page 16	_____	_____	G-D	Comply with the conclusions of a geotechnical investigation
TM; MMP: see page 18	_____	_____	G-E	Implement proper design of stream channel over-crossings
TM; MMP: see page 19	_____	_____	HW-A	Remove debris and investigate areas of possible contamination
TM; MMP: see page 20	_____	_____	HW-B	Review additional sources of information prior to construction
TM; MMP: see page 21	_____	_____	HW-C	Sample and analyze materials associated with septic tank systems and abandon septic tank systems
TM; MMP: see page 22	_____	_____	HW-D	Legal abandonment of existing wells
TM	_____	_____	H-A	Replace/add culverts
TM,UP	_____	_____	H-B	Pay developer fees for regional flood control improvements
TM	_____	_____	H-C	Provide a post-development Stormwater Management Program
TM	_____	_____	H-D	Provide runoff rate control
TM	_____	_____	H-E	Provide compensatory floodplain storage
TM	_____	_____	H-F	Demonstrate no increase in water surface elevation, or revise the Proposed Project to delete proposed floodplain fill
SP	_____	_____	H-G	Locate open space uses next to the floodplain

MONITORING MECHANISM	MONITOR INITIALS	DATE COMPLETE	MITIGATION NUMBER	MITIGATION MEASURE
TM	____	_____	H-H	Provide overland flow routes for 100-year rate of runoff
TM,UP	____	_____	H-I	Provide two feet of freeboard between 100-year flood elevations and first floor of all structures
TM,UP	____	_____	H-J	Prepare a grading and erosion control plan
MMP: see page 23	____	_____	H-K	Provide streambank reinforcement and sediment zone monitoring
TM	____	_____	H-L	Implement water quality BMPs
TM,UP	____	_____	H-M	Grade the golf course to drain through treatment facilities
TM	____	_____	H-N	Promote stormwater treatment pond plug flow
MMP: see page 24	____	_____	B-H	Require pre-construction surveys for raptor nests and provide buffer zones
SP, TM	____	_____	B-P	Provide buffer zone around wetlands and riparian areas
MMP: see page 25	____	_____	B-R	Reduce glare by limiting the number of lights near the golf course and other non-residential areas
SP,DA	____	_____	B-Q	Avoid disturbance to preserve and mitigation areas
MMP: see page 26	____	_____	B-S	Provide cutoff-luminaries near undeveloped areas
SP,DG	____	_____	C-A	Set schoolhouse foundation site aside in protected area as an historic site
MMP: see page 27	____	_____	C-B	Construct barrier around grave site
DG	____	_____	V-A	Maintain high aesthetic standards for Proposed Project through Development Guidelines and Standards
<u>Construction Measures</u>				
MMP: see page 28	____	_____	PS-C	Well drawdown testing
TM,UP	____	_____	A-A	Provide dust controls
MMP: see page 30	____	_____	A-B	Maintain construction vehicles
MMP: see page 31	____	_____	A-C	Provide EPA-certified wood-burning devices
MMP: see page 32	____	_____	N-A	Require construction noise abatement

MONITORING MECHANISM	MONITOR INITIALS	DATE COMPLETE	MITIGATION NUMBER	MITIGATION MEASURE
MMP: see page 33	_____	_____	B-A	Minimize construction during the spring and early summer raptor breeding season
MMP: see page 34	_____	_____	B-B	Restrict construction activities to daylight hours
MMP: see page 35	_____	_____	B-C	Restrict worker and equipment access
MMP: see page 35	_____	_____	B-D	Manage construction parking
MMP: see page 36	_____	_____	B-E	Orient construction workers
TP	_____	_____	B-F	Preserve oak trees during construction
MMP: see page 38	_____	_____	B-G	Provide additional protection of sensitive resource zones during construction
TM,UP	_____	_____	B-I	Reduce disturbance to active raptor nest(s)
TP	_____	_____	B-M	Minimize construction and grading within the Protected Zone of oak trees
MMP: see page 39	_____	_____	C-C	Consult qualified archaeologist if buried archaeological deposits are discovered during construction
TM,UP	_____	_____	V-B	Screen/sensitively store construction equipment and materials
Operational Measures				
MMP: see page 40	_____	_____	PS-A	Restrict development based on accessible water supply
MMP: see page 41	_____	_____	PS-B	Restrict development based upon water treatment capacity
MMP: see page 42	_____	_____	PS-D	Provide additional lift station/conveyance capacity to provide service beyond the year 2000
MMP: see page 43	_____	_____	PS-E	Restrict development based upon wastewater treatment capacity
MMP: see page 44	_____	_____	PS-H	Establish new geographic beat
DA	_____	_____	PS-J	Increase RFD equipment/staffing to decrease RFD response times
SP	_____	_____	PS-K	Develop senior-oriented programs and facilities
SP,UP	_____	_____	PS-L	Establish an onsite informal library facility
DA	_____	_____	PS-M	Establish a library computer link

MONITORING MECHANISM	MONITOR INITIALS	DATE COMPLETE	MITIGATION NUMBER	MITIGATION MEASURE
DA	____	_____	PS-N	Participate in new City-wide fee for public facilities, including libraries, which may be implemented in the future
DA	____	_____	T-G	Provide dedicated passenger shuttle or transit vehicle service
MMP: see page 45	____	_____	A-D	Provide public awareness materials
MMP: see page 46	____	_____	B-T	Restrict nighttime maintenance in areas near the golf course and drainages
Compensatory Measures				
SP, TM	____	_____	B-J	Replace or enhance grassland vegetation
SP,TP	____	_____	B-K	Replace protected oak trees
SP,TP	____	_____	B-L	Enhance and restore oak riparian and blue oak savannah habitats
SP	____	_____	B-N	Enhance and restore riparian habitats
SP	____	_____	B-O	Preserve and create wetlands habitat
SP	____	_____	B-U	Preserve and relocate dwarf downingia
SP	____	_____	B-V	Preserve/relocate vernal pool fairy shrimp populations, as well as potential populations of vernal pool tadpole shrimp and California linderiella
SP	____	_____	B-W	Preserve western spadefoot toad population
MMP: see page 47	____	_____	B-X	Provide a comprehensive mitigation plan
MMP: see page 48	____	_____	B-Y	Implement a long-term monitoring plan
MMP: see page 51	____	_____	B-Z	Establish success criteria for habitat creation and compensation
DA	____	_____	B-AA	Provide for long-term maintenance of central park\preserve

Notes:

- G.P. - Indicated on the General Plan
- S.P. - Indicated on the Del Webb Specific Plan
- D.G. - Identified on the Del Webb Design Guidelines
- D.A. - Monitored annually during review of the Development Agreement
- T.P. - Condition of Del Webb's tree permit
- T.M. - Indicated on Del Webb's tentative map
- U.P. - Condition of Del Webb's use permit
- MMP - No monitoring currently established by the City; monitoring program provided in this document

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Transportation and Circulation

Mitigation Measure No. T-A: Update transportation CIP to widen Fiddyment Road and Walerga Road at the intersection to provide two through lanes in each direction, separate left-turn pockets and an exclusive northbound right-turn lane.

Fiddyment Road and Walerga Road should each be widened for approximately 500 feet north and south, respectively, of their intersection with Baseline Road to provide four north/south through lanes at this intersection. Separate left-turn lanes should also be provided on each of the four intersection approaches, as well as an exclusive northbound right-turn lane, to provide LOS "C" conditions in 2010 with the Proposed Project. These improvements would be needed in addition to the widening of Baseline Road to four lanes that are needed under the General Plan. The improvement of Walerga Road south of Baseline Road would occur as part of the Dry Creek-West Placer Community Plan Community Facilities District (CFD), formed in June of 1993.

The Proposed Project should either contribute to the traffic impact fee program the equivalent cost of the additional improvements needed beyond those required under the General Plan or the CFD, so that the full intersection improvement can be implemented when needed, or contribute its fair share of the total intersection improvement under a revised traffic impact fee program.

Agency or Individual Responsible for Monitoring:	Roseville Public Works Department — Land Development and Transportation Division
Timing:	The CIP should be updated within one year. The fee should be collected prior to the issuance of occupancy permits.
Monitoring Work Program:	The Public Works Department should update the transportation CIP to widen Fiddyment Road and Walerga Road at the intersection and should bill the Applicant for the fair share cost.
Standards of Success:	This measure will be deemed successful when the transportation CIP is updated to reflect a widened Fiddyment Road and Walerga Road intersection and the Applicant has paid a fair share cost.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Transportation and Circulation

Mitigation Measure No. T-B: Update transportation CIP to provide a second northbound left-turn lane at the intersection of Washington Boulevard and Pleasant Grove Boulevard.

In addition to the improvements required under the General Plan, a second northbound left-turn lane on Washington Boulevard at Pleasant Grove Boulevard should be provided to allow LOS "C" conditions in 2010 with the Proposed Project. The Proposed Project should contribute its fair share to implementation of the full improvements needed at this intersection under a revised traffic fee program that includes the Proposed Project.

Agency or Individual Responsible for Monitoring:	Roseville Public Works Department — Land Development and Transportation Division
Timing:	The CIP should be updated within one year. The fee should be collected prior to the issuance of occupancy permits.
Monitoring Work Program:	The Public Works Department should update the transportation CIP to provide a second northbound left-turn lane at the intersection of Washington Boulevard and Pleasant Grove Boulevard.
Standards of Success:	The measure will be deemed successful when the left-turn lane is included in the transportation CIP and the Applicant has paid a fair share cost.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Transportation and Circulation

Mitigation Measure No. T-C: Update transportation CIP to provide offsite extension of Junction Boulevard.

The extension of Junction Boulevard to either Fiddyment Road or Baseline Road would divert enough traffic from Pleasant Grove Boulevard to provide an acceptable level of service in 2010 with the Proposed Project. This extension has been proposed as part of other development in the Northwest and West Urban Reserve areas. Under 2010 market levels with development in the City's Urban Reserve and Annexation areas, the Pleasant Grove Boulevard/Foothill Boulevard intersection would operate at LOS "C" conditions, due not only to the extension of Junction Boulevard, but also a "redistribution" of 2010 travel patterns in northwest and west Roseville, because of a different mix of land uses.

This extension should be added to the transportation CIP, and the Proposed Project should contribute its fair share to implementation of a two-lane roadway under a revised traffic fee program.

Agency or Individual Responsible for Monitoring:	Roseville Public Works Department — Land Development and Transportation Division
Timing:	Include measure with Proposed Project approval. The CIP should be updated within one year. The fee should be collected prior to the issuance of occupancy permits.
Monitoring Work Program:	The Public Works Department should update the transportation CIP to provide offsite extension of Junction Boulevard.
Standards of Success:	This measure will be deemed successful when an offsite extension of Junction Boulevard is included in the transportation CIP and the Applicant has paid a fair share cost.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Transportation and Circulation

Mitigation Measure No. T-D: Update transportation CIP and traffic fees to include the Proposed Project.

To accelerate the phasing of certain improvements in the transportation CIP and to accommodate the Proposed Project, the transportation CIP should be updated and traffic fees should be revised to account for this acceleration. The projects to be accelerated include improvements at the Foothills Boulevard/Pleasant Grove intersection (from 2005 and 2010 to 2000), and at the Washington Boulevard/Pleasant Grove Boulevard intersection (from 2010 to 2005).

Agency or Individual Responsible for Monitoring:	Roseville Public Works Department — Land Development and Transportation Division
Timing:	The CIP and traffic fee program should be updated within one year.
Monitoring Work Program:	As a requirement of the Development Agreement, the Public Works Department should update the transportation CIP and traffic fees to include the Proposed Project.
Standards of Success:	This measure will be deemed successful when the City has updated the transportation CIP and traffic fee program to include the Proposed Project.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Transportation and Circulation

Mitigation Measure No. T-F: Provide golf cart signage at community entrances.

Appropriate signage would be provided at entrances to the community to warn non-residents entering the community that golf carts are in use within the community.

Agency or Individual Responsible for Monitoring:	Roseville Public Works Department — Land Development and Transportation Division
Timing:	Prior to final design approval and acceptance of improvements
Monitoring Work Program:	The Public Works Department should review final plans to verify that signage is provided at entrances to the community. The construction inspector will ensure implementation.
Standards of Success:	This measure will be deemed successful when signage is provided at all entrances to the community.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Soils, Geology, and Seismicity

Mitigation Measure No. G-B: Prepare a master grading plan.

The master grading plan should be designed to minimize disruption to the natural features and existing topography. Topographic alterations should be such as to not significantly increase the amount of runoff into natural drainages, or significantly alter the width and/or gradient of such drainages. Design of the master grading plan should be such that structures are not placed in areas of significant amounts of differential fill depths and/or over the transition between a cut and a fill slope.

Agency or Individual Responsible for Monitoring:	Roseville Public Works Department — Land Development and Transportation Division
Timing:	Prior to the approval of improvement plans.
Monitoring Work Program:	The Public Works Department should cause the Applicant to prepare a master grading plan for each phase.
Standards of Success:	This measure will be deemed successful when the Applicant has prepared grading plans, and the City has approved them, prior to construction in each phase.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Soils, Geology, and Seismicity

Mitigation Measure No. G-C: Implement erosion control plan.

An erosion control plan should be prepared and implemented during construction. The Plan should include the use of hay bales, filter berms, sandbags, filter inlets, silt fencing, good housekeeping, etc. It should require regular sprinkling with water of exposed areas to reduce soil loss due to wind erosion. Restriction of grading activities to minimize erosion should be addressed in the environmental plan. In addition, prompt replanting of exposed soil areas to reduce the potential for erosion should be required.

Agency or Individual Responsible for Monitoring: Roseville Public Works Department — Land Development and Transportation Division

Timing: Include measures on improvement plans; implement during construction activities.

Monitoring Work Program: The Public Works Department should cause the Applicant to prepare an approved erosion control plan and should perform visual inspections as needed to verify that the measures are implemented. If deficiencies are noted, they must be promptly corrected, or construction activities may be halted.

Standards of Success: This measure will be deemed successful when the Public Works Department observes that an erosion control plan has been implemented throughout construction.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Soils, Geology, and Seismicity

Mitigation Measure No. G-D: Comply with the conclusions of a geotechnical investigation.

Prior to the commencement of any earthwork on the Proposed Project property, a full-scale geotechnical investigation should be completed. The geotechnical investigation should include:

- soil borings;
- laboratory testing; and
- grading and design recommendations.

The grading and design recommendations should, at a minimum, address the following issues:

- fill control plan;
- expansive soils;
- differential settlement;
- slope instability;
- foundation instability;
- stream bank protection; and
- other significant geological characteristics pertinent to proper development of the Proposed Project property.

The geotechnical investigation should consist of soil borings to collect samples and laboratory testing to determine the appropriate design parameters for use in determination of the structural fill, roadbed fill, and landscaping fill requirements, along with the fill placement requirements. The various soils should also be tested for corrosivity, to allow for proper foundation design.

Design of engineered fills should require that the geotechnical investigation assess the structural properties of each of the different soils types throughout the Proposed Project area. Such an investigation would address specific parcels to be developed in order to account for the various structures and roadways proposed for that particular parcel.

Grading and fill placement should be monitored and compaction testing should be performed to ensure proper placement of all fill types (structural, non-structural, and roadbed).

In addition to the measures mentioned above, soils should be tested for their shrink-swell potential. Soils with low strength and/or high shrink-swell potential should be controlled by over-excavation, or covering these soils with a sufficient amount of granular soils (as determined by the geotechnical investigation). Potentially expansive soils should only be placed in areas determined not to consist of structural fill.

In addition to evaluation for engineered fills, specific geotechnical evaluation of engineered slopes within the Proposed Project boundaries should also be included in the geotechnical evaluation. All proposed cut and/or fill slopes should be evaluated for proper design in order to reduce the hazard of over-steepening and/or removing of their lateral support, both of which could lead to slope instability , structural failure, and landsliding. If necessary, slopes should be designed with additional lateral support, such as buttressing, and fill slopes should be properly keyed into competent formational materials. Slopes (banks) along the creek channels should be designed with proper slope protection to prevent soil erosion and channel-bank undercutting. Specific identification of the slope protection needed within the creek channels and floodplains should be included.

Agency or Individual Responsible for Monitoring: Roseville Public Works Department — Land Development and Transportation Division

Timing: Prior to approval of any improvement plans for the Proposed Project.

Monitoring Work Program: The Public Works Department should review the results of a geotechnical investigation performed by the Applicant or Applicant's consultant. The review will verify that all required components have been included, and that the findings of the investigation have been incorporated into the final plans, prior to commencement of any earthwork on the property.

Standards of Success: This measure will be deemed successful when a geotechnical investigation, as specified, has been performed and recommendations of the investigation have been appropriately considered in final design.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Soils, Geology, and Seismicity

Mitigation Measure No. G-E: Implement proper design of stream channel over-crossings.

Design of roadway over-crossings at streams, creeks, and drainages should be engineered to reduce erosion and stream degradation created by the proposed placement of such structures. Bridges should be designed with proper buttressing and erosion control devices. Culverts should be designed to handle stream flow at flood-stage levels. The design of the stream channel over-crossings should be approved by the City of Roseville's hydraulics engineer.

Agency or Individual Responsible for Monitoring: Roseville Public Works Department — Land Development and Transportation Division

Timing: Prior to approval of improvement plans; construction permits (e.g., grading permit) will not be issued until completion of this mitigation.

Monitoring Work Program: The Public Works Department will review the Proposed Project's stream channel over-crossings to verify proper design of buttresses, erosion control devices, and adequately sized culverts.

Standards of Success: This measure will be deemed successful when the Public Works Department has approved the design of all stream channel over-crossings, and all stream crossings have been constructed per the approved designs.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Hazardous Waste

Mitigation Measure No. HW-A: Remove debris and investigate areas of possible contamination.

Prior to the Proposed Project grading activities, all areas with drum and/or liquid container storage, and/or car parts and debris associated with them, should be cleared of such debris. The Applicant has initiated such removal; thirty drums and six tanks were removed in August 1993.

All such areas should be sampled and analyzed for possible hydrocarbon, pesticide and metals contamination. Areas identified as having soils contamination should be remediated if necessary, prior to the continuation of grading activities.

Agency or Individual Responsible for Monitoring: Roseville Fire Department

Timing: Prior to the issuance of grading permits.

Monitoring Work Program: The Fire Department should cause the Applicant to hire a qualified environmental consultant to complete a hazardous waste investigation. If contaminated sites are identified, a remediation program must be established by the applicant after consultation with the Department of Toxic Substance Control. The Fire Department should inspect the debris removal process.

Standards of Success: This measure will be deemed successful when debris is cleared and borings do not indicate the presence of contamination or when hazardous materials found onsite are remediated to a level acceptable by the California Department of Toxic Substance Control.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Hazardous Waste

Mitigation Measure No. HW-B: Review additional sources of information prior to construction.

The following sources of information should be reviewed prior to construction, including grading activities associated with pre-construction activities, to further confirm that no known hazardous waste sites occur in the study area:

- CERCLIS — Contaminated Sites Under CERCLA (1980)
- NPL — National Superfund Sites
- LIENS — Filed Notices of Superfund Liens
- CORTESE — Hazardous Waste & Substances Site List
- BEP — Sites Authorized for Cleanup under the California Bond Expenditure Plan - California Superfund Sites
- HWP — Sites Designated as Hazardous Waste Properties and Border Zone Properties
- ASPIS — Abandoned Sites Program
- SWIS — Active & Inactive Sanitary Landfills and Disposal Facilities
- LUST — Leaking Underground Storage Tanks

Agency or Individual Responsible for Monitoring: Roseville Public Works Department — Land Development and Transportation Division

Timing: Conducted as part of the hazardous waste investigation discussed in Mitigation Measure No. HW-A and prior to the issuance of grading permits.

Monitoring Work Program: The Public Works Department should cause the Applicant to hire a qualified environmental consultant to review additional sources of hazardous waste information. Information relating to the presence of hazardous waste onsite should be used in planning the hazardous waste investigation discussed in Mitigation Measure No. HW-A.

Standards of Success: This measure will be deemed successful when written verification is received that additional sources of information have been reviewed and that (1) no known hazardous waste sites occur in the study area, (2) the presence of an identified site would not impact the Proposed Project, or (3) additional actions have been implemented to remediate the hazardous waste.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Hazardous Waste

Mitigation Measure No. HW-C: Sample and analyze materials associated with septic tank systems and abandon septic tank systems.

An investigation should be conducted to evaluate if septic tank systems exist on the Proposed Project site. If septic tank systems do exist on the Proposed Project site, the associated material should be sampled for a priority pollutant scan. If contamination exists, the septic systems should be properly remediated, closed/removed, and disposed of (if necessary) prior to Proposed Project construction.

Agency or Individual Responsible for Monitoring:	Roseville Environmental Utilities Department
Timing:	Prior to approval of improvement plans for the phase or phases affecting this area.
Monitoring Work Program:	The Environmental Utilities Department should require the Applicant to hire a qualified professional to complete a septic tank investigation. The investigation should include both septic tanks and leach fields. If contaminated soils are found, a remediation program must be established by the Applicant after consultation with the Department of Toxic Substance Control prior to the start of construction.
Location:	Proposed Project site.
Standards of Success:	This measure will be deemed successful when an investigation does not indicate the presence of contamination or when hazardous materials found onsite are remediated to a level acceptable by the California Department of Toxic Substance Control and the Roseville Environmental Utilities Department.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Hazardous Waste

Mitigation Measure No. HW-D: Legal abandonment of existing wells.

At least three wells are known to exist on the Proposed Project property, one of which has already been abandoned. All wells should be legally abandoned prior to construction activities.

Agency or Individual Responsible for Monitoring:	Roseville Environmental Utilities Department
Timing:	Prior to initiation of rough grading or prior to issuance of grading permits for the affected area.
Monitoring Work Program:	The City should cause the Applicant to contract with a qualified professional for legal abandonment of existing wells. The wells will be abandoned in a manner that is acceptable to the Placer County Department of Environmental Health and the Roseville Environmental Utilities Department.
Location:	Three wells onsite.
Standards of Success:	This measure will be deemed successful when written verification is received that all wells located on the Proposed Project site have been legally abandoned.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Hydrology and Water Quality

Mitigation Measure No. H-K: Provide streambank reinforcement and sediment zone monitoring.

Some features of the Proposed Project would increase stream velocities in segments of Kaseberg Creek and its branches, which would increase the rate of erosion in these segments. In other areas, Proposed Project features would result in a reduction in stream velocities, which would result in an increase in the rate of sedimentation in these segments.

Stream course segments with an increase or decrease in stream flow velocities of 25 percent or more should be identified. Stream segments with velocity increases should be examined by a qualified geologist or soils engineer to determine those areas that would be sensitive to an increase in flow velocity and subsequent erosion. A stream bank reinforcement plan should be developed to reduce the impact of increased velocities to a level that is less than significant. Depending on the magnitude of velocity increases, reinforcement could include the placement of gabions, geotextile materials, and plantings. If practicable, geotextile reinforcement and plantings would be preferable to gabions.

Stream segments with velocity reductions should be surveyed to identify sensitive plant communities that could be adversely impacted by accumulation of sediments. Identified plant communities should be mapped and monitored and compensatory measures taken to maintain or replace these communities. This measure should be coordinated with the overall wetland mitigation plan for the Proposed Project.

Agency or Individual Responsible for Monitoring:	The Applicant
Timing:	Stream bank reinforcement plans should be completed prior to approval of improvement plans affecting the area.
Monitoring Work Program:	The Applicant should identify locations in Kaseberg Creek where stream flow velocities exceed 25 percent, and should develop stream bank reinforcement plans for these areas. Areas should be monitored four times during each rainy season up to two years after completion of all construction to identify locations of increased erosion requiring repair.
Standards of Success:	This measure will be deemed successful when no increases in erosion and no degradation of sensitive plant communities occur in Kaseberg Creek.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Biological Resources

Mitigation Measure No. B-H: Require pre-construction surveys for raptor nests and provide buffer zones.

A survey to identify active raptor nests should be conducted by a qualified biologist prior to construction in each phase. If active raptor nest(s) are found, avoid construction activities around active nest trees during the breeding season (March to early July) or while nest is occupied, monitor nest activity during tree removal activities and construction, and provide up to a 350-foot buffer zone around active nests (depending on the species and in consultation with a qualified biologist), when construction in that area is absolutely necessary.

Agency or Individual Responsible for Monitoring: Roseville Planning Department

Timing: Prior to issuance of grading permits in each phase; prior to site disturbance in each phase and during the appropriate season.

Monitoring Work Program: The Planning Department should cause the Applicant to contract a qualified biologist to survey for raptor nests prior to each phase. Data will be recorded by survey personnel concerning:

(1) date which pre-construction surveys are initiated, performed, and completed;

(2) survey methods and objectives;

(3) complete species list;

(4) results of surveys; and

(5) mitigation and timing to prevent nest disturbance.

If nests are found, the City should: 1) require that construction activities avoid active nests; 2) monitor nest activity; and 3) provide a buffer zone if necessary.

Standards of Success: This measure will be deemed successful if pre-construction surveys are performed prior to construction activities in each phase and, if active nest(s) are found, a qualified biologist monitors nest(s) while construction activities are in the vicinity to ensure that buffer zones are established and active nest(s) disturbance is avoided.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Biological Resources

Mitigation Measure No. B-R: Reduce glare by limiting the number of lights near the golf course and other non-residential areas.

Reduction of light and glare in areas adjacent to wildlife activities should reduce impediments to wildlife movement in areas of wildlife habitat remaining in the study area after completion of the Proposed Project. To the extent feasible, design nighttime lighting in these areas for the minimum amount of lights consistent with safety and other community requirements.

Agency or Individual Responsible for Monitoring:	Roseville Public Works Department — Land Development and Transportation Division and Roseville Planning Department
Timing:	Prior to approval of improvement plans and as part of site review approval.
Monitoring Work Program:	The Public Works Department will review plans to verify that glare and nightlighting has been minimized near open space and park/preserves.
Standards of Success:	This measure will be deemed successful when the City has verified that, to the extent feasible, nighttime lighting has been minimized near open space and park/preserves.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Biological Resources

Mitigation Measure No. B-S: Provide cutoff-luminaries near undeveloped areas.

Cutoff-luminaries are a type of light-bulb fixture designed to minimize the amount of light cast behind light poles. Include these fixtures near the golf course and other nonresidential areas to reduce impediments to wildlife movement in these areas, in a manner consistent with safety and other community requirements.

Agency or Individual Responsible for Monitoring:	Roseville Planning Department
Timing:	Include measures into final design and implement during construction.
Monitoring Work Program:	The Planning Department will review plans to verify that cutoff-luminaries are provided near the golf course and other nonresidential areas.
Standards of Success:	This measure will be deemed successful when the City has verified that cutoff-luminaries are used near undeveloped areas.

PRE-CONSTRUCTION MEASURE

EIR CHAPTER: Cultural Resources

Mitigation Measure No. C-B: Construct barrier around grave site.

A barrier, consisting of a wrought iron fence or similar form of barricade should be constructed around the grave site. Although such a measure cannot ensure that the grave would not be subjected to vandalism, it should deter all but the most determined offenders.

Agency or Individual Responsible for Monitoring: Roseville Parks and Recreation Department

Timing: Include measures into final design and implement during construction activities.

Monitoring Work Program: The Parks and Recreation Department will review the final plans to ensure a barrier fence has been included on the plans. The Public Works Department construction inspector shall inspect the actual fence construction.

Standards of Success: This measure will be deemed successful when a barrier, consisting of a wrought iron fence or similar form of barricade, is constructed around the grave site.

CONSTRUCTION MEASURE

EIR CHAPTER: Public Services

Mitigation Measure No. PS-C: Well drawdown testing.

The proposed well should be tested during development to determine the zone of influence of the well during normal and prolonged operation at rates of flow commensurate with irrigation water supply requirements and at full capacity, which would be commensurate with City emergency water supply requirements. The well should be tested in accordance with standard practices for determination of cone of depression and radius of influence for the two flow rate scenarios mentioned above. The resulting information would be used to assess the area of potential drawdown impact and to identify existing adjacent wells that could be impacted by operation of the proposed well. Based on available information it appears that the probability of continued operation of the well is remote; however, more thorough and quantitative analysis should be performed to more precisely define the specific adjacent wells that may be impacted by operating the proposed well. If adjacent wells are identified as being subject to reduced yield, appropriate measures should be taken to provide the well owners with an adequate water supply during operation of the proposed wells. Appropriate measures could include one or more of the following:

- development and implementation of an emergency water supply plan for affected groundwater users;
- extending water distribution piping to service the affected groundwater users;
- enhancing the capacity of existing wells; or
- discontinuing operation of the well.

Agency or Individual Responsible for Monitoring:	The Applicant during construction; Roseville Environmental Utilities Department during well operation
Timing:	During well construction and well operation.
Monitoring Work Program:	The Applicant will contract with a qualified professional to test the proposed well in accordance with standard practices. The Environmental Utilities Department should require a written report characterizing the area of potential drawdown and identifying adjacent wells possibly impacted. During well operation, the Roseville Environmental Utilities Department will monitor adjacent wells and ensure well owners have an adequate supply of water.
Location:	Proposed well onsite and adjacent wells offsite.

Standards of Success:	This measure will be deemed successful when well testing to determine the proposed well's zone of influence has been performed, and when adjacent well owners have an adequate supply of water during operation of the proposed well.

CONSTRUCTION MEASURE

EIR CHAPTER: Air Quality

Mitigation Measure No. A-B: Maintain construction vehicles

Well-maintained equipment generates less pollutant emissions than poorly-maintained equipment. All construction vehicles and equipment should be maintained according to manufacturers specifications. Construction contractors should be required to show written evidence of appropriate maintenance prior to bringing equipment onsite.

Agency or Individual Responsible for Monitoring:	Roseville Public Works Department — Land Development and Transportation Division
Timing:	Prior to the issuance of grading permits.
Monitoring Work Program:	The City should receive a written statement from the Applicant that construction equipment has been properly maintained.
Standards of Success:	This measure will be deemed successful when the Public Works Department receives a written statement of appropriate equipment maintenance.

CONSTRUCTION MEASURE

EIR CHAPTER: Air Quality

Mitigation Measure No. A-C: Provide EPA-certified wood-burning devices

All wood-burning devices in Proposed Project residences should be EPA-certified devices. EPA-certified devices would produce fewer particulate and combustion-related emissions than non-certified devices.

Agency or Individual Responsible for Monitoring:	Roseville Building Department
Timing:	Prior to issuance of residential building permits.
Monitoring Work Program:	The Building Department should require written verification that the types of wood-burning devices in Proposed Project residences are EPA-certified.
Standards of Success:	This measure will be deemed successful when written verification is received that the types of wood-burning devices installed in residences are EPA-certified.

CONSTRUCTION MEASURE

EIR CHAPTER: Noise

Mitigation Measure No. N-A: Require construction noise abatement.

The Roseville Municipal Code requires that impact tools and equipment have intake and exhaust mufflers recommended by the equipment manufacturers. Pavement breakers and jack hammers must be equipped with manufacturer-recommended acoustically alternating shrouds or shields. Also, construction specifications should conform with construction practices identified in Caltrans Standard Specifications, Section 7, Sound Control Requirements. These Specifications require the contractor to comply with local regulations and ordinances relating to construction noise, and to equip all internal combustion engines with a manufacturer-recommended muffler.

Agency or Individual Responsible for Monitoring:	Roseville Public Works Department — Land Development and Transportation Division
Timing:	Prior to the issuance of grading permits.
Monitoring Work Program:	The City should receive a written statement from the Applicant that construction equipment is properly maintained and equipped with intake and exhaust mufflers recommended by the manufacturers.
Standards of Success:	This measure will be deemed successful when the Public Works Department receives a written statement from the Applicant that all construction equipment is properly maintained and equipped with intake and exhaust mufflers recommended by the manufacturers.

CONSTRUCTION MEASURE

EIR CHAPTER: Biological Resources

Mitigation Measure No. B-A: Minimize construction during the spring and early summer raptor breeding season.

Time construction to minimize activities during seasons of raptor breeding and reproduction (spring and early summer) where construction borders open space and park/preserves.

Agency or Individual Responsible for Monitoring:	Roseville Planning Department, Roseville Community Development Department, and Roseville Public Works Department — Engineering Division
Timing:	During construction activities.
Monitoring Work Program:	The Applicant's biologist will review construction schedules and recommend appropriate adjustments to minimize construction during the spring and early summer breeding season near open space park/preserves.
Standards of Success:	This measure will be deemed successful if construction activity is minimized during spring and early summer where construction borders open space and park/preserves to minimize wildlife disturbance.

CONSTRUCTION MEASURE

EIR CHAPTER: Biological Resources

Mitigation Measure No. B-B: Restrict construction activities to daylight hours.

Schedule daily construction activities such that periods of highest wildlife activity (dusk, nighttime and dawn) are avoided.

Agency or Individual Responsible for Monitoring:	Roseville Public Works Department — Land Development and Transportation Division
Timing:	During construction activities.
Monitoring Work Program:	The Public Works Department should perform periodic (but at least monthly) visual inspections to ensure that construction activities are taking place only during daylight hours.
Standards of Success:	This measure will be deemed successful when no construction activities are observed during dusk, nighttime, and dawn periods.

CONSTRUCTION MEASURE

EIR CHAPTER: Biological Resources

Mitigation Measure No. B-C: Restrict worker and equipment access.

Restrict construction-worker access from areas not zoned for construction to avoid disturbance of sensitive plant and wildlife species outside of designated construction zones. Restricted use includes non-work hours, i.e., lunch and after hours.

Mitigation Measure No. B-D: Manage construction parking.

Manage roads and construction-worker parking areas during construction periods. No vehicles or equipment of any kind should be located within restricted areas (future preserves, vernal pools, riparian areas, wetlands, and the Protected Zones of oak trees) unless directly related to the management of the resource (i.e., monitoring or maintenance equipment).

Agency or Individual Responsible for Monitoring:	The Applicant and the Roseville Public Works Department
Timing:	Identify restricted areas on improvement plans; require fencing during construction activities.
Monitoring Work Program:	The Applicant should prepare maps of restricted zones and provide them to the Public Works Department, all workers, and CDFG. The Public Works Department should perform periodic (at least once per week during construction) visual inspection to verify that construction workers and equipment remain outside of restricted areas.
Standards of Success:	These measures will be deemed successful when the Public Works Department observes that temporary fencing or other marking devices have been implemented to restrict construction-worker and equipment access from areas identified as restricted.

CONSTRUCTION MEASURE

EIR CHAPTER: Biological Resources

Mitigation Measure No. B-E: Orient construction workers.

Orient construction workers regarding wildlife and habitat sensitivities. Brief introductory statements should be made as to the resources onsite, the types and locations of restricted areas, the protection and mitigation measures being employed and the biological and legal reasons for implementing them, and other requirements (no littering, speed limits in certain areas, etc.) and should be required to sign forms indicating that they have been advised on the sensitivity of the habitats and the requirements. Violators should be removed from the job site (and/or the Contractor can be fined, at the discretion of the Environmental Coordinator). Emphasis should be placed on the cost associated with failure to accomplish successful mitigation.

Agency or Individual Responsible for Monitoring:	Roseville Community Development Department and Applicant's biologist
Timing:	Prior to or on the first day of work for construction employees.
Monitoring Work Program:	The Applicant to perform the following tasks: (1) Development and distribution of an environmental guidelines checklist for all project employees and contractors, covering such topics as: existence and location of sensitive vegetation, wildlife habitats and species; expectations and procedures for avoiding construction impacts to sensitive species and habitats; and contract points and procedures for reporting unintentional impacts to the Community Development Department; (2) Orientation by a qualified biologist at the preconstruction meeting for all project employees and contractors covering topics presented in the environmental guidelines; (3) Development of a form to be signed by all project personnel and contractors, indicating understanding of all materials in the checklist and orientation, and intention to abide by all requirements presented therein; and (4) Periodic discussions (at least quarterly) with project personnel and contractors to review these requirements and to gauge compliance with environmental standards. Results should be included in progress reports.

Standards of Success:	This measure will be deemed successful if an environmental guidelines checklist is developed and distributed, all project employees and contractors undergo an initial orientation and a quarterly review, all personnel sign a form indicating understanding of all materials in the environmental procedures manual and sensitive habitat disturbance is minimized.

CONSTRUCTION MEASURE

EIR CHAPTER: Biological Resources

Mitigation Measure No. B-G: Provide additional protection of sensitive resource zones during construction.

Use temporary fencing and flagging, signs, and other marking devices as necessary to define sensitive resource zones, including oak trees, wetlands and riparian areas. Fencing should be brightly colored and maintained for the duration of the construction activity. Fences should be checked several times after installation to ensure they do not sag. Flagging should be on posts at least eight feet high to be visible to equipment operators. Signs should be large enough to be visible, and should use plain language.

Agency or Individual Responsible for Monitoring:	Roseville Public Works Department — Land Development and Transportation Division
Timing:	Identify sensitive resource zones on grading plans and implement during construction activities.
Monitoring Work Program:	The Public Works should perform visual inspections at least weekly to verify that temporary fencing and flagging, signs, and other marking devices are maintained for the duration of the construction activity. If deficiencies are noted, they must be promptly corrected, or construction activities may be halted.
Standards of Success:	This measure will be deemed successful when the monitor observes that specified resource protection is provided and disturbance to sensitive resources is minimized.

CONSTRUCTION MEASURE

EIR CHAPTER: Cultural Resources

Mitigation Measure No. C-C: Consult qualified archaeologist if buried archaeological deposits are discovered during construction.

In the event of the discovery of buried archaeological deposits, project construction in the vicinity of the find should be temporarily halted and a qualified archaeologist consulted to assess the resource and provide proper management recommendations. Possible management recommendations for important resources could include resource avoidance or data recovery excavations.

Agency or Individual Responsible for Monitoring:	Roseville Community Development Department and the Applicant
Timing:	During construction activities.
Monitoring Work Program:	The Applicant must notify the City and consult with a qualified archaeologist if archaeological deposits are discovered before construction activity in the vicinity could resume.
Standards of Success:	This measure will be deemed successful if, in the event of an archaeological discovery, construction is temporarily halted, the Community Development Department is notified, a qualified archaeologist is consulted, and recommendations are implemented.

OPERATIONAL MEASURE

EIR CHAPTER: Public Services

Mitigation Measure No. PS-A: Restrict development based upon accessible water supply.

Additional accessible water supply will be required prior to full buildout of the Proposed Project. The City has identified when water demand would trigger the need for expansion of the water supply. Planning for the increased accessible water supply must begin when the peak day demand exceeds 75 percent of the supply delivery or when the annual demand exceeds 75 percent of the total supply allotment. When the average day demand exceeds 90 percent of the accessible water entitlements, the City Council will evaluate all feasible water supply alternatives and water conservation measures, and the maximum use of reclaimed water, prior to a consideration of restricting additional water service connections. This mitigation measure cannot be implemented by the Applicant. The Environmental Utilities Department should monitor peak day and annual demand and, according to the triggers identified above, should notify the City Council when these thresholds are reached.

Agency or Individual Responsible for Monitoring:	Roseville Environmental Utilities Department
Timing:	Initiate planning for securing additional entitlements when the peak day demand exceeds 75 percent of the supply delivery or when the annual demand exceeds 75 percent of the total supply allotment. The City Council will evaluate all feasible water supply alternatives when the average day demand exceeds 90 percent of the accessible water entitlements.
Monitoring Work Program:	The Environmental Utilities Department should prepare quarterly reports identifying peak day demand and annual demand. The Environmental Utilities Department should notify the City Council when the average day demand exceeds 90 percent of accessible water entitlements.
Standards of Success:	This measure will be deemed successful so long as the City has enough accessible water supply so that the peak day demand does not exceed 75 percent of supply delivery or that the annual demand does not exceed 75 percent of the total supply allotment.

OPERATIONAL MEASURE

EIR CHAPTER: Public Services

Mitigation Measure No. PS-B: Restrict development based upon water treatment capacity.

Additional water treatment capacity will be required prior to full buildout of the Proposed Project. The City has identified when water treatment capacity would trigger the need for expansion of the treatment plant. Planning for the increased water treatment capacity must begin when the peak day demand exceeds 75 percent of the treatment capacity. When the demand for water treatment exceeds 90 percent of the water treatment capacity, the City Council will evaluate all available water treatment options, the maximum use of reclaimed water, and water conservation measures, prior to a consideration of restricting additional water service connections. This mitigation measure cannot be implemented by the Applicant. The City should monitor peak day demand and, according to the triggers identified above, should notify the City Council when these thresholds are reached.

Agency or Individual Responsible for Monitoring:	Roseville Environmental Utilities Department
Timing:	Initiate planning for expansion of the City's water treatment capacity when the peak day demand exceeds 75 percent of the treatment plant capacity. New development would be prohibited when the demand for water treatment exceeds 90 percent of the water treatment plant's capacity.
Monitoring Work Program:	The Environmental Utilities Department should prepare quarterly reports identifying peak day demand. The Environmental Utilities Department should notify the City Council when peak day demand exceeds 90 percent of the water treatment capacity.
Standards of Success:	This measure will be deemed successful as long as the City has enough water treatment plant capacity so that peak day demand does not exceed 90 percent of capacity.

OPERATIONAL MEASURE

EIR CHAPTER: Public Services

Mitigation Measure No. PS-D: Provide additional lift station/conveyance capacity to provide service beyond the year 2000.

Lift station Number 1 would provide service to the Proposed Project during the initial phases, but it is expected to reach its maximum capacity before the year 2000. As part of its environmental utility Capital Improvement Program, the City is planning to provide additional sewerage capacity at lift station Number 1 by constructing a new force main from lift station Number 1 to the existing wastewater treatment plant.

Although lift station Number 1 is currently being expanded to a capacity of 10 mgd, and the lift station should be capable of providing service to the Proposed Project at full build-out, other areas are expected to develop that would place additional demand upon the capacity of lift station Number 1 and there is no guarantee that adequate sewerage capacity will exist at the time the Proposed Project reaches full build-out. Therefore, as an additional mitigation measure, the construction of the new force main should be completed by the City by the year 2000. The City has initiated this mitigation measure. If the Pleasant Grove Wastewater Plant is constructed, lift station Number 1 would be abandoned and the need for this mitigation would be eliminated.

Agency or Individual Responsible for Monitoring:	Roseville Environmental Utilities Department
Timing:	Prior to the year 2000.
Monitoring Work Program:	The Environmental Utilities Department should monitor sewerage capacity of lift station Number 1 and should provide additional lift station/conveyance capacity by constructing a new force main, if necessary.
Standards of Success:	This measure will be deemed successful if a new force main is operational by the year 2000 or if lift station Number 1 is abandoned and a new force main is unnecessary due to construction of the Pleasant Grove Wastewater Treatment Plant.

OPERATIONAL MEASURE

EIR CHAPTER: Public Services

Mitigation Measure No. PS-E: Restrict development based upon wastewater treatment capacity.

Additional wastewater treatment capacity should be required prior to full buildout of the Proposed Project. As mitigation for the Proposed Project's impact on wastewater treatment capacity, planning for expansion of the City's wastewater treatment capacity must begin when the peak dry weather flow exceeds 75 percent of the treatment plant capacity. When the peak day dry weather inflow rate exceeds 95 percent of the regional wastewater treatment capacity, the Roseville City Council, the South Placer Municipal Utility District, and Placer County shall evaluate measures to minimize inflow and infiltration in the sewer system, and all feasible strategies to reduce wastewater discharge into the sewer system, prior to a consideration of restricting new sewer connections. This mitigation measure cannot be implemented by the Applicant. The City should monitor peak dry weather flows and, according to the trigger identified above, should notify the City Council when these thresholds are reached.

Agency or Individual Responsible for Monitoring:	Roseville Environmental Utilities Department
Timing:	Initiate planning for expansion of the City's wastewater treatment capacity when the peak dry weather flow exceeds 75 percent of the treatment plant capacity. Measures to minimize inflow and infiltration in the sewer system and all feasible strategies to reduce wastewater discharge should be evaluated when demand exceeds 95 percent of the wastewater treatment plant's capacity.
Monitoring Work Program:	The Environmental Utilities Department should prepare quarterly reports identifying peak dry weather flow. The Environmental Utilities Department should notify the City Council when peak dry weather flow exceeds 95 percent of capacity.
Standards of Success:	This measure will be deemed successful as long as the Environmental Utilities Department has enough wastewater treatment plant capacity so that peak dry weather flow does not exceed 95 percent of capacity.

OPERATIONAL MEASURE

EIR CHAPTER: Public Services

Mitigation Measure No. PS-H: Establish new geographic beat.

The City has determined that impacts to police services necessitate the establishment of a new geographic beat in the western portion of the City. This new geographic beat would require additional officers and a reconfiguration of the patrol beat assignments on the northwest side of the City. The City would fund this new beat.

Agency or Individual Responsible for Monitoring:	Roseville Police Department
Timing:	As service calls require, but no later than the completion of Phase 1.
Monitoring Work Program:	The Police Department should establish a new geographic beat and provide for adequate staffing.
Standards of Success:	This measure will be deemed successful when a new geographic beat has been established and adequately staffed.

OPERATIONAL MEASURE

EIR CHAPTER: Air Quality

Mitigation Measure No. A-D: Provide public awareness materials.

Include educational materials regarding air quality in homeowners/renters packages for all occupants. Information contained in these packages should, at a minimum, provide information in the following areas:

- Transportation control measures. Inform project occupants of the amenities provided by the Proposed Project in terms of alternative travel modes, including ridesharing and mass transit availability/schedules. Provide maps showing pedestrian, bicycle, and golf-cart paths to community centers, shopping areas, and recreational areas.

- Open burning and wood burning.

Agency or Individual Responsible for Monitoring:	Roseville Community Development Department
Timing:	Prior to issuance of first residential occupancy permit.
Monitoring Work Program:	The TSM Coordinator and Environmental Coordinator should be provided written handouts for review. Educational materials regarding air quality should be included in homeowners/renters packages for all occupants.
Standards of Success:	This measure will be deemed successful when educational materials have been distributed to homeowners/renters.

OPERATIONAL MEASURE

EIR CHAPTER: Biological Resources

Mitigation Measure No. B-T: Restrict nighttime maintenance in areas near the golf course and drainages.

Working equipment and human activity inhibit normal wildlife movement. Restricting nighttime maintenance activities through Codes, Covenants, and Restrictions (CC&Rs) in areas near the golf course and drainages should reduce a potential impediment to wildlife movement through these corridors.

Agency or Individual Responsible for Monitoring:	Homeowner's Association and Roseville City Attorney (review of CC&Rs)
Timing:	Recorded in CC&Rs and implemented during project operations.
Monitoring Work Program:	The Homeowner's Association will provide golf course maintenance programs to verify restriction of nighttime maintenance activities in areas near the golf course and drainages.
Standards of Success:	This measure will be deemed successful if adequate restrictions to nighttime maintenance activities have been implemented and potential impacts to wildlife movement have been lessened.

COMPENSATORY MEASURES

COMPENSATORY MEASURE

EIR CHAPTER: Biological Resources

Mitigation Measure No. B-X: Provide a comprehensive mitigation plan.

A comprehensive mitigation plan should be developed that outlines specific actions to be taken, timing of the actions, and expected results. The plan should coordinate and update the various mitigation plans or actions proposed by the Applicant for specific resource areas, including wetlands, oak trees, and oak habitat and grasslands, with additional mitigation recommended herein. Each of these resource areas should be addressed as separate sections. The methods for accomplishing the mitigation should be specified, including planting locations, irrigation hook-ups, identification of the limits of restricted areas, and others as appropriate.

A schedule of mitigation actions should be specified in the detailed mitigation plan. The schedule should include timing of mitigation actions with consideration of construction phasing and biological constraints, including the growing season, establishment and reproductive periods, and any other periods of sensitivity to disturbance.

The mitigation plan should encompass all mitigation proposed by the Applicant and additional mitigation recommended herein. Additional mitigation required by the reviewing or permitting agencies should also be incorporated.

Agency or Individual Responsible for Monitoring:	Roseville Community Development Department and Planning Department
Timing:	Prior to issuance of any grading permits.
Monitoring Work Program:	The Applicant will have a qualified biologist prepare a mitigation plan. The Community Development Department and Planning Department will review and approve the mitigation plan.
Standards of Success:	The measure will be deemed successful when the Community Development Department and Planning Department reviews and approves the mitigation plan, and the plan is successfully implemented.

COMPENSATORY MEASURES

COMPENSATORY MEASURE

EIR CHAPTER: Biological Resources

Mitigation Measure No. B-Y: Implement a long-term monitoring plan.

An integrated long-term monitoring program should provide a schedule of monitoring activities and goals for each of the specific resource areas (wetlands, oak trees, and wildlife and other habitats). The monitoring plan should be prepared by a qualified biologist experienced with long-term monitoring programs. For wetlands, hydrology and aquatic invertebrates, monitoring should continue annually for at least five years or until success criteria have been met, whichever is longer. For oak trees, including oak habitat and arboricultural condition, monitoring should continue for five years from the date of planting or impact, in accordance with the conditions of the City's Tree Permit. The locations of monitored biological resource elements should be specified on maps and in database inventories of the following: hydrology and vegetation of created and reference area wetlands, planted non-native trees, planted oak trees, transplanted oak trees, oak trees with construction or grading within the Protected Zone, and aquatic invertebrate populations. Identification of the specific monitoring goals, such as the level of intensity of monitoring (number of samples or observations required for statistical confidence) should be made in advance. Methods of evaluation, including statistical tests or trend analysis, should be determined to avoid collection of meaningless data. Efficiency of monitoring should increase with this coordinated approach. The following sections should be addressed in the monitoring program:

- Wetlands Monitoring. The goals of the wetlands mitigation plan were summarized in Mitigation Measure B-R and outlined in detail in the Applicant's wetlands mitigation plan. Changes to the Proposed Project, and to the proposed acreage and ratio of compensation, should be updated in this plan. During the first year following construction of vernal pools, regular field inspections should be made to identify functioning status of pools. The period of surface ponding should be monitored in each seasonal wetland to adequately assess whether the hydrology criteria are met. Vegetation data should be collected at each compensation wetland. Sampling should be conducted in late spring at the height of hydrophytic vegetation cover.

  A report summarizing collected data and evaluating the progress of the compensation effort should be submitted annually. Each report should describe the progress in vernal pool and seasonal wetland compensation. Data on hydrologic function, vegetation, aquatic invertebrate and wildlife use should be presented and conditions should be compared with the success criteria. Trends should be assessed through the date of the report.

  Monitoring should continue in each compensation wetland for five years or until the required hydrologic regime and vegetation have been established. Three consecutive years of meeting vegetation and hydrology criteria of success are also required. The Applicant should be released from further obligation for a particular compensation wetland provided that the conditions are meet or exceed the success criteria and all required annual reports have been submitted and accepted by the Corps, as part of their permitting process.

- Hydrological monitoring. Water quality and quantity generated from irrigation and residential runoff should be monitored according to Mitigation Measures H-J, H-L and H-N. The impact of water quality and quantity on created and existing wetlands should be evaluated by comparison of pools not impacted (far removed from runoff sources) with created or potentially impacted pools (located near runoff sources or detention ponds).

- Oak Tree Monitoring. Planted oak trees should be monitored for survival, establishment and health by a certified arborist, according to the Applicant's *Oak Generation Plan*. Monitoring should continue for up to five years from the date of planting or impact, in accordance with the terms of the City's Tree permit.

- Arboricultural Monitoring. Additional monitoring of trees with construction or grading within the Protected Zone should be performed by a certified arborist, according to Mitigation Measures B-F and B-M and conditions of the Tree Permit. Monitoring should continue for five years from the date of impact.

- Aquatic Invertebrates. Monitoring of populations of aquatic invertebrates should be conducted in created and existing pools, according to the *Wetland Mitigation Plan*.

Agency or Individual Responsible for Monitoring:	Roseville Community Development Department and Planning Department
Timing:	Prior to issuance of any grading permits; intermittently during and after construction, and as required by the Monitoring Plan.
Monitoring Work Program:	The Applicant will have a qualified biologist prepare a long-term monitoring plan. The Community Development Department and Planning Department will review and approve the long-term monitoring plan. The Applicant should provide annual reports of monitoring results to the City.
Standards of Success:	This measure will be deemed successful when the Community Development Department and Planning Department review and approve the completed long-term monitoring plan, and when it is implemented by the Applicant in a manner that provides an appropriate level of monitoring data upon which to judge the success of the mitigation being monitored, and when annual monitoring reports are submitted to the City.

COMPENSATORY MEASURE

EIR CHAPTER: Biological Resources

Mitigation Measure No. B-Z: Establish success criteria for habitat creation and compensation.

Mitigation of habitats should only be considered successful after all success criteria have been met and all human intervention or maintenance has ceased for a minimum of three years. If created habitats fall below established success standards during these three years, remedial measures must be taken and monitoring re-initiated. Success criteria will be included in the long-term monitoring plan specified in Mitigation Measure B-Y.

At a minimum, specific success criteria for each resource element should include the following:

- Vernal pools. Success should be evaluated on the basis of hydrologic function. The sole criteria of hydrologic success in vernal pools should be period of inundation. The hydrologic function of a constructed vernal pool should be considered acceptable if the average annual period of inundation is within the range which characterizes existing pools or if the average annual period is within 10 percent of the range limits and three of the annual periods of inundation are within the range. Ponding depth and duration in created vernal pools and seasonal wetlands should be compared with existing pools.

  Existing vernal pools should not have their hydrology affected by either proposed development or by vernal pool creation efforts. Existing pools in proximity to project features (golf course, residential areas, roads) should be compared to existing pools far removed from developments, such as in the park preserve. This will establish a continuous baseline that will allow evaluation of hydrologic function independent of seasonal variation in rainfall. The period of inundation of an existing vernal pool should be considered to have been adversely affected if the period of inundation decreases by 30 percent or more for two consecutive years and selected control pools do not show a similar response. Changes due to inadequate or ineffective mitigation should be differentiated from fluctuations of the hydrologic function that are inherent in vernal pool ecosystems.

  Vernal pool vegetation should be considered successfully established when 50 percent of the total cover is hydrophytic vegetation and the compensation pool contains a number of vernal pool species equal or greater than 80 percent of the average number of vernal pool species in existing pools of the same depth class.

- Seasonal wetlands. Seasonal wetlands criteria for success should require saturation within the root zone or inundation of at least 30 days during the growing season. To be considered acceptable, 50 percent of the total cover should be hydrophytic vegetation. The number of plant species present should be equal to at least 80 percent of the average number of species in the wetlands surveyed. The cover of plant species present should be equal to at least 80 percent of the average cover of species in the wetlands surveyed. The number of plant species, total cover of hydrophytic species, and species diversity should not decline during the monitoring period.

- Aquatic Invertebrates. No success criteria are currently attached to monitoring of aquatic invertebrates populations. Additional monitoring and success criteria may be imposed if the species become listed as threatened or endangered by the USFWS prior to development.

- Water Quality. Water quality of irrigation and residential and stormwater runoff should be considered acceptable if it shows no evidence of negative impact on wetlands or oak tree health and vigor. Vegetation impacts should be assessed by vegetation data collected during the wetlands monitoring efforts.

- Oak Trees. The success criteria for establishing oaks is summarized in the *Oak Generation Plan*, and further in Mitigation Measures B-F and B-K. In the *Oak Generation Plan* the success criteria are exceedance of the diameter inch-goal of 4,736 inches through various planting combinations. Each oak seedling, sapling or tree deemed successfully established by a City-approved certified arborist will be credited at its actual DBH at the time of planting. Acorns will be credited with their DBH as measured after five years. Because the *Oak Generation Plan* addressed a different version of the Proposed Project with slightly lower estimates of tree losses, it should be updated to reflect a lower corrected diameter inch success criterion. These methods are in accordance with the Tree Permit.

  Additional arboricultural monitoring should establish that trees with construction or grading within the Protected Zone show no signs of degradation. Loss of health or vigor should be mitigated through immediate remedial planting of acorns or container stock of the same species and in similar habitat as the affected tree. Newly planted trees or acorns then become part of the ongoing oak mitigation program, and should be monitored and cultivated similarly.

Agency or Individual Responsible for Monitoring:	Roseville Community Development Department and Planning Department
Timing:	Prior to issuance of any grading permits
Monitoring Work Program:	The Applicant will have a qualified biologist establish success criteria for each resource element. The Community Development Department and Planning Department would review and approve these success criteria.
Standards of Success:	This measure will be deemed successful when the Community Development Department and Planning Department review and approve success criteria.

APPENDIX A

DEL WEBB SPECIFIC PLAN
MITIGATION MEASURE FIELD VERIFICATION FORM

Monitoring Phase: ___ Pre-Construction ___ Construction ___ Operation ___ Compensatory

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Requirement Met or Is Continuing To Be Met:

Date	*Yes*	*No*	*Mitigation Measure Number*	*Description of Mitigation Measure*
_____	___	___	_____	_____
_____	___	___	_____	_____
_____	___	___	_____	_____
_____	___	___	_____	_____
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_____	___	___	_____	_____
_____	___	___	_____	_____

Comments: (Attach additional sheets as necessary)

I hereby certify that I have inspected the project site and that the above information is true to the best of my knowledge.

Name (Print)_____
Representing_____

Signature_____
Date_____

APPENDIX B

SUMMARY OF MITIGATION MEASURES AND IMPACTS THEY MITIGATE

Mitigation Measure No. A-A: Provide dust controls

IMPACT NO. A-1: Construction activity would create short-term emissions of fugitive PM_{10}
IMPACT NO. A-6: Inconsistent with the goals of the 1991 Placer County Air Quality Management Plan
IMPACT NO. V-4: Adverse effects on visual quality with equipment operations, dust generation and equipment/materials storage during construction

Mitigation Measure No. A-B: Maintain construction vehicles

IMPACT NO. A-2: Construction-related exhaust would contribute to region-wide ozone precursor pollutant emissions
IMPACT NO. A-6: Inconsistent with the goals of the 1991 Placer County Air Quality Management Plan

Mitigation Measure No. A-C: Provide EPA-certified wood-burning devices

IMPACT NO. A-4: New PM_{10} and ozone precursor pollutant emissions from stationary and mobile sources
IMPACT NO. A-6: Inconsistent with the goals of the 1991 Placer County Air Quality Management Plan

Mitigation Measure No. A-D: Provide public awareness materials

IMPACT NO. A-4: New PM_{10} and ozone precursor pollutant emissions from stationary and mobile sources
IMPACT NO. A-6: Inconsistent with the goals of the 1991 Placer County Air Quality Management Plan

Mitigation Measure No. B-A: Minimize construction during the spring and early summer raptor breeding season

IMPACT NO. B-16: Disturbance of raptor nesting habitat during construction

Mitigation Measure No. B-B: Restrict construction activities to daylight hours

IMPACT NO. B-7: Temporary disturbance to wildlife during construction

Mitigation Measure No. B-C: Restrict worker and equipment access

IMPACT NO. B-3: Potential loss of oak trees due to impacts within the Protected Zone from residential and golf course construction activity, siting of golf cart paths and other facilities
IMPACT NO. B-7: Temporary disturbance to wildlife during construction

Mitigation Measure No. B-D: Manage construction parking

IMPACT NO. B-3: Potential loss of oak trees due to impacts within the Protected Zone from residential and golf course construction activity, siting of golf cart paths and other facilities
IMPACT NO. B-7: Temporary disturbance to wildlife during construction
IMPACT NO. B-16: Disturbance of raptor nesting habitat during construction

Mitigation Measure No. B-E: Orient construction workers

IMPACT NO. B-3: Potential loss of oak trees due to impacts within the Protected Zone from residential and golf course construction activity, siting of golf cart paths and other facilities
IMPACT NO. B-7: Temporary disturbance to wildlife during construction
IMPACT NO. B-16: Disturbance of raptor nesting habitat during construction

Mitigation Measure No. B-F: Preserve oak trees during construction

IMPACT NO. B-3: Potential loss of oak trees due to impacts within the Protected Zone from residential and golf course construction activity, siting of golf cart paths and other facilities
IMPACT NO. B-7: Temporary disturbance to wildlife during construction
IMPACT NO. V-2: Decrease in visual quality due to removal of oak savannah/riparian/vernal pool vegetation

Mitigation Measure No. B-G: Provide additional protection of sensitive resource zones during construction

IMPACT NO. B-3: Potential loss of oak trees due to impacts within the Protected Zone from residential and golf course construction activity, siting of golf cart paths and other facilities
IMPACT NO. B-7: Temporary disturbance to wildlife during construction

Mitigation Measure No. B-H: Require pre-construction surveys for raptor nests and provide buffer zones

IMPACT NO. B-16: Disturbance of raptor nesting habitat during construction

Mitigation Measure No. B-I: Reduce disturbance to active raptor nest(s)

IMPACT NO. B-16: Disturbance of raptor nesting habitat during construction

Mitigation Measure No. B-J: Replace or enhance grassland vegetation

IMPACT NO. B-1: Loss of 957.36 acres of non-native grassland habitat
IMPACT NO. B-8: Long-term loss of wildlife habitat
IMPACT NO. B-15: Loss of American badger habitat
IMPACT NO. B-17: Loss of raptor habitat

Mitigation Measure No. B-K: Replace protected oak trees

IMPACT NO. B-2:	Removal of 375 oak trees with DBH greater than six inches
IMPACT NO. B-4:	Loss of 20.44 acres of oak riparian woodland habitat
IMPACT NO. B-5:	Loss of 27.56 acres of blue oak savannah habitat
IMPACT NO. B-8:	Long-term loss of wildlife habitat
IMPACT NO. B-17:	Loss of raptor habitat
IMPACT NO. L-8:	Inconsistent with Policy OB-5
IMPACT NO. V-2:	Decrease in visual quality due to removal of oak savannah/riparian/vernal pool vegetation

Mitigation Measure No. B-L: Enhance and restore oak riparian and blue oak savannah habitats

IMPACT NO. B-4:	Loss of 20.44 acres of oak riparian woodland habitat
IMPACT NO. B-5:	Loss of 27.56 acres of blue oak savannah habitat
IMPACT NO. B-6:	Loss or degradation of oak trees and oak riparian woodland habitat from irrigation and urban runoff
IMPACT NO. B-8:	Long-term loss of wildlife habitat
IMPACT NO. B-9:	Elimination of wildlife movement corridors and restriction of wildlife movement across the study area and between open spaces
IMPACT NO. B-17:	Loss of raptor habitat
IMPACT NO. L-8:	Inconsistent with Policy OB-5
IMPACT NO. V-1:	Conversion of rural landscape character to developed character
IMPACT NO. V-2:	Decrease in visual quality due to removal of oak savannah/riparian/vernal pool vegetation

Mitigation Measure No. B-M: Minimize construction and grading within the Protected Zone of oak trees

IMPACT NO. B-2:	Removal of 375 oak trees with DBH greater than six inches
IMPACT NO. B-3:	Potential loss of oak trees due to impacts within the Protected Zone from residential and golf course construction activity, siting of golf cart paths and other facilities
IMPACT NO. B-17:	Loss of raptor habitat
IMPACT NO. L-8:	Inconsistent with Policy OB-5

Mitigation Measure No. B-N: Enhance and restore riparian habitats

IMPACT NO. B-4:	Loss of 20.44 acres of oak riparian woodland habitat
IMPACT NO. B-8:	Long-term loss of wildlife habitat
IMPACT NO. B-9:	Elimination of wildlife movement corridors and restriction of wildlife movement across the study area and between open spaces
IMPACT NO. L-8:	Inconsistent with Policy OB-5
IMPACT NO. V-1:	Conversion of rural landscape character to developed character
IMPACT NO. V-2:	Decrease in visual quality due to removal of oak savannah/riparian/vernal pool vegetation

Mitigation Measure No. B-O: Preserve and create wetlands habitat

IMPACT NO. B-8:	Long-term loss of wildlife habitat
IMPACT NO. B-10:	Loss of 5.13 acres of vernal pools

IMPACT NO. B-11: Loss of 4.53 acres of seasonal freshwater wetlands, 1.37 acres of defined drainages, and 3.80 acres of swales
IMPACT NO. B-13: Degradation of wetlands from changes to hydraulic regime
IMPACT NO. B-18: Potential loss of western spadefoot toad
IMPACT NO. L-8: Inconsistent with Policy OB-5
IMPACT NO. L-9: Inconsistent with Policy OC-3
IMPACT NO. V-2: Decrease in visual quality due to removal of oak savannah/riparian/vernal pool vegetation

Mitigation Measure No. B-P: Provide buffer zone around wetlands and riparian areas

IMPACT NO. B-4: Loss of 20.44 acres of oak riparian woodland habitat
IMPACT NO. B-6: Loss or degradation of oak trees and oak riparian woodland habitat from irrigation and urban runoff
IMPACT NO. B-8: Long-term loss of wildlife habitat
IMPACT NO. B-10: Loss of 5.13 acres of vernal pools
IMPACT NO. B-11: Loss of 4.53 acres of seasonal freshwater wetlands, 1.37 acres of defined drainages, and 3.80 acres of swales
IMPACT NO. B-13: Degradation of wetlands from changes to hydraulic regime
IMPACT NO. B-14: Loss of dwarf downingia populations
IMPACT NO. B-18: Potential loss of western spadefoot toad
IMPACT NO. B-19: Loss of vernal pool fairy shrimp, vernal pool tadpole shrimp, and California linderiella
IMPACT NO. L-8: Inconsistent with Policy OB-5
IMPACT NO. L-9: Inconsistent with Policy OC-3

Mitigation Measure No. B-Q: Avoid disturbance to preserve and mitigation areas

IMPACT NO. B-4: Loss of 20.44 acres of oak riparian woodland habitat
IMPACT NO. B-5: Loss of 27.56 acres of blue oak savannah habitat
IMPACT NO. B-8: Long-term loss of wildlife habitat
IMPACT NO. B-10: Loss of 5.13 acres of vernal pools
IMPACT NO. B-11: Loss of 4.53 acres of seasonal freshwater wetlands, 1.37 acres of defined drainages, and 3.80 acres of swales
IMPACT NO. B-14: Loss of dwarf downingia populations

Mitigation Measure No. B-R: Reduce glare by limiting the number of lights near the golf course and other non-residential areas

IMPACT NO. B-9: Elimination of wildlife movement corridors and restriction of wildlife movement across the study area and between open spaces

Mitigation Measure No. B-S: Provide cutoff-luminaries near undeveloped areas

IMPACT NO. B-9: Elimination of wildlife movement corridors and restriction of wildlife movement across the study area and between open spaces

Mitigation Measure No. B-T: Restrict nighttime maintenance in areas near the golf course and drainages

IMPACT NO. B-9: Elimination of wildlife movement corridors and restriction of wildlife movement across the study area and between open spaces

Mitigation Measure No. B-U: Preserve and relocate dwarf downingia

IMPACT NO. B-14: Loss of dwarf downingia populations

Mitigation Measure No. B-V: Preserve/relocate vernal pool fairy shrimp populations, as well as potential populations of vernal pool tadpole shrimp and California linderiella

IMPACT NO. B-19: Loss of vernal pool fairy shrimp, vernal pool tadpole shrimp, and California linderiella

Mitigation Measure No. B-W: Preserve western spadefoot toad population

IMPACT NO. B-18: Potential loss of western spadefoot toad

Mitigation Measure No. B-X: Provide a comprehensive mitigation plan

IMPACT NO. B-2: Removal of 375 oak trees with DBH greater than six inches
IMPACT NO. B-4: Loss of 20.44 acres of oak riparian woodland habitat
IMPACT NO. B-5: Loss of 27.56 acres of blue oak savannah habitat
IMPACT NO. B-6: Loss or degradation of oak trees and oak riparian woodland habitat from irrigation and urban runoff
IMPACT NO. B-10: Loss of 5.13 acres of vernal pools
IMPACT NO. B-11: Loss of 4.53 acres of seasonal freshwater wetlands, 1.37 acres of defined drainages, and 3.80 acres of swales
IMPACT NO. B-13: Degradation of wetlands from changes to hydraulic regime
IMPACT NO. B-14: Loss of dwarf downingia populations
IMPACT NO. B-17: Loss of raptor habitat
IMPACT NO. B-19: Loss of vernal pool fairy shrimp, vernal pool tadpole shrimp, and California linderiella
IMPACT NO. L-8: Inconsistent with Policy OB-5
IMPACT NO. L-9: Inconsistent with Policy OC-3

Mitigation Measure No. B-Y: Implement a long-term monitoring plan

IMPACT NO. B-2: Removal of 375 oak trees with DBH greater than six inches
IMPACT NO. B-3: Potential loss of oak trees due to impacts within the Protected Zone from residential and golf course construction activity, siting of golf cart paths and other facilities
IMPACT NO. B-4: Loss of 20.44 acres of oak riparian woodland habitat
IMPACT NO. B-5: Loss of 27.56 acres of blue oak savannah habitat
IMPACT NO. B-6: Loss or degradation of oak trees and oak riparian woodland habitat from irrigation and urban runoff
IMPACT NO. B-10: Loss of 5.13 acres of vernal pools

IMPACT NO. B-11: Loss of 4.53 acres of seasonal freshwater wetlands, 1.37 acres of defined drainages, and 3.80 acres of swales
IMPACT NO. B-13: Degradation of wetlands from changes to hydraulic regime
IMPACT NO. B-14: Loss of dwarf downingia populations
IMPACT NO. B-17: Loss of raptor habitat
IMPACT NO. B-19: Loss of vernal pool fairy shrimp, vernal pool tadpole shrimp, and California linderiella
IMPACT NO. L-8: Inconsistent with Policy OB-5
IMPACT NO. L-9: Inconsistent with Policy OC-3

Mitigation Measure No. B-Z: Establish success criteria for habitat creation and compensation

IMPACT NO. B-2: Removal of 375 oak trees with DBH greater than six inches
IMPACT NO. B-4: Loss of 20.44 acres of oak riparian woodland habitat
IMPACT NO. B-5: Loss of 27.56 acres of blue oak savannah habitat
IMPACT NO. B-6: Loss or degradation of oak trees and oak riparian woodland habitat from irrigation and urban runoff
IMPACT NO. B-10: Loss of 5.13 acres of vernal pools
IMPACT NO. B-11: Loss of 4.53 acres of seasonal freshwater wetlands, 1.37 acres of defined drainages, and 3.80 acres of swales
IMPACT NO. B-13: Degradation of wetlands from changes to hydraulic regime
IMPACT NO. B-14: Loss of dwarf downingia populations
IMPACT NO. B-17: Loss of raptor habitat
IMPACT NO. B-19: Loss of vernal pool fairy shrimp, vernal pool tadpole shrimp, and California linderiella
IMPACT NO. L-8: Inconsistent with Policy OB-5
IMPACT NO. L-9: Inconsistent with Policy OC-3

Mitigation Measure No. B-AA: Provide for long-term maintenance of central park/preserve

IMPACT NO. B-10: Loss of 5.13 acres of vernal pools
IMPACT NO. B-11: Loss of 4.53 acres of seasonal freshwater wetlands, 1.37 acres of defined drainages, and 3.80 acres of swales
IMPACT NO. B-19: Loss of vernal pool fairy shrimp, vernal pool tadpole shrimp, and California linderiella

Mitigation Measure No. C-A: Set schoolhouse foundation site aside in protected area as an historic site

IMPACT NO. C-1: Possible vandalism to PA-89-3 (Schoolhouse foundation site)

Mitigation Measure No. C-B: Construct barrier around grave site

IMPACT NO. C-1: Possible vandalism to PA-89-3 (Schoolhouse foundation site)

Mitigation Measure No. C-C: Consult qualified archaeologist if buried archaeological deposits are discovered during construction

IMPACT NO. C-2: Damage to undiscovered cultural resources

Mitigation Measure No. G-A: Implement soil protection policies

IMPACT NO. G-1: Topographic alteration resulting from earth grading for structure placement, transportation system development, and overall site improvements.
IMPACT NO. G-4: Increased erosion during construction
IMPACT NO. G-5: Erosion occurring after completion of Proposed Project
IMPACT NO. G-7: Expansive soil
IMPACT NO. V-3: Decrease in visual quality due to loss of visual diversity associated with variations and contrasts

Mitigation Measure No. G-B: Prepare a master grading plan

IMPACT NO. G-1: Topographic alteration resulting from earth grading for structure placement, transportation system development, and overall site improvements.
IMPACT NO. G-5: Erosion occurring after completion of Proposed Project
IMPACT NO. V-3: Decrease in visual quality due to loss of visual diversity associated with variations and contracts

Mitigation Measure No. G-C: Implement erosion control plan

IMPACT NO. G-4: Increased erosion during construction

Mitigation Measure No. G-D: Comply with the conclusions of a geotechnical investigation

IMPACT NO. G-5: Erosion occurring after completion of Proposed Project
IMPACT NO. G-6: Differential settlement of soils under proposed structures
IMPACT NO. G-7: Expansive soil
IMPACT NO. G-8: Foundation instability
IMPACT NO. G-9: Slope instability

Mitigation Measure No. G-E: Implement proper design of stream channel over-crossings

IMPACT NO. G-10: Obstruction of flow due to roadway channel crossings

Mitigation Measure No. HW-A: Remove debris and investigate areas of possible contamination

IMPACT NO. HW-1: Possible soil contamination

Mitigation Measure No. HW-B: Review additional sources of information prior to construction

IMPACT NO. HW-1: Possible soil contamination

Mitigation Measure No. HW-C: Sample and analyze materials associated with septic tank systems and abandon septic tank systems

IMPACT NO. HW-2: Possible disruption of septic systems

Mitigation Measure No. HW-D: Legal abandonment of existing wells

IMPACT NO. HW-3: Possible disruption of existing wells

Mitigation Measure No. H-A: Replace/add culverts

IMPACT NO. H-1: Runoff rate exceeds capacity of existing culverts

Mitigation Measure No. H-B: Pay developer fees for regional flood control improvements

IMPACT NO. H-2: Offsite increase in flood elevations

Mitigation Measure No. H-C: Provide a post-development Stormwater Management Program

IMPACT NO. H-2: Offsite increase in flood elevations
IMPACT NO. H-5: Reduced stormwater runoff water quality
IMPACT NO. H-6: Reduced water quality resulting from use of reclaimed water

Mitigation Measure No. H-D: Provide runoff rate control

IMPACT NO. H-2: Offsite increase in flood elevations

Mitigation Measure No. H-E: Provide compensatory floodplain storage

IMPACT NO. H-2: Offsite increase in flood elevations

Mitigation Measure No. H-F: Demonstrate no increase in water surface elevation or revise the Proposed Project to delete proposed floodplain fill

IMPACT NO. H-2: Offsite increase in flood elevations

Mitigation Measure No. H-G: Locate open space uses next to the floodplain

IMPACT NO. H-3: Onsite increase in flood elevations
IMPACT NO. L-8: Inconsistent with Policy OB-5

Mitigation Measure No. H-H: Provide overland flow routes for 100-year rate of runoff

IMPACT NO. H-3: Onsite increase in flood elevations

Mitigation Measure No. H-I: Provide two feet of freeboard between 100-year flood elevations and first floor of all structures

IMPACT NO. H-3: Onsite increase in flood elevations

Mitigation Measure No. H-J: Prepare a grading and erosion control plan

IMPACT NO. H-4: Increased erosion and sedimentation
IMPACT NO. B-12: Degradation of wetlands and oak riparian habitat from runoff during construction
IMPACT NO. L-9: Inconsistent with Policy OC-3

Mitigation Measure No. H-K: Provide streambank reinforcement and sediment zone monitoring

IMPACT NO. H-4: Increased erosion and sedimentation
IMPACT NO. L-9: Inconsistent with Policy OC-3

Mitigation Measure No. H-L: Implement water quality BMPs

IMPACT NO. H-5: Reduced stormwater runoff water quality
IMPACT NO. H-6: Reduced water quality resulting from use of reclaimed water

IMPACT NO. B-6: Loss or degradation of oak trees and oak riparian woodland habitat from irrigation and urban runoff
IMPACT NO. B-12: Degradation of wetlands and oak riparian habitat from runoff during construction
IMPACT NO. B-13: Degradation of wetlands from changes to hydraulic regime

Mitigation Measure No. H-M: Grade the golf course to drain through treatment facilities

IMPACT NO. H-5: Reduced stormwater runoff water quality
IMPACT NO. H-6: Reduced water quality resulting from use of reclaimed water

Mitigation Measure No. H-N: Promote stormwater treatment pond plug flow

IMPACT NO. H-5: Reduced stormwater runoff water quality
IMPACT NO. H-6: Reduced water quality resulting from use of reclaimed water
IMPACT NO. B-6: Loss or degradation of oak trees and oak riparian woodland habitat from irrigation and urban runoff
IMPACT NO. B-13: Degradation of wetlands from changes to hydraulic regime
IMPACT NO. L-9: Inconsistent with Policy OC-3

Mitigation Measure No. L-A: Provide buffers, a landscape corridor and minimum rear lot setbacks along Fiddyment Road

IMPACT L-5: Conflict with adjoining agricultural land use

Mitigation Measure No. L-B: Adopt a General Plan Amendment revising land use allocations

IMPACT L-6: Inconsistent with Policy LI-1

Mitigation Measure No. L-C: Implement development guidelines and standards to minimize adjacent use conflicts

IMPACT L-19: Conditionally compatible public/institutional and residential adjacent land uses

IMPACT L-20: Conditionally compatible community commercial and residential adjacent land uses

Mitigation Measure No. N-A: Require construction noise abatement

IMPACT NO. N-1: Short-term noise level increases at noise-sensitive areas near construction activities
IMPACT NO. V-4: Adverse effects on visual quality with equipment operations, dust generation and equipment/materials storage during construction

Mitigation Measure No. P-A: Pay in-lieu fee toward City purchase of Parcel 75

IMPACT NO. P-3: Failure to meet park credits as required by General Plan
IMPACT NO. L-10: Inconsistent with Policy PA-1

Mitigation Measure No. PS-A: Restrict development based upon accessible water supply

IMPACT NO. PS-1: Increased demand for domestic water
IMPACT NO. PS-2: Decreased water supply during drought periods

Mitigation Measure No. PS-B: Restrict development based upon water treatment capacity

IMPACT NO. PS-3: Increased demand for domestic water treatment

Mitigation Measure No. PS-C: Well drawdown testing

IMPACT NO. PS-7: Lowering of shallow groundwater table

Mitigation Measure No. PS-D: Provide additional lift station/conveyance capacity to provide service beyond the year 2000

IMPACT NO. PS-8: Increased demand on wastewater collection system

Mitigation Measure No. PS-E: Restrict development based upon wastewater treatment capacity

IMPACT NO. PS-9: Increased demand on wastewater treatment system

Mitigation Measure No. PS-F: Provide onsite recycling drop-off location

IMPACT NO. PS-16: Increased demand for solid waste disposal

Mitigation Measure No. PS-G: Include site safety design considerations

IMPACT NO. PS-17: Increased demand for police services

Mitigation Measure No. PS-H: Establish new geographic beat

IMPACT NO. PS-17: Increased demand for police services

Mitigation Measure No. PS-I: Allocate a one-acre site for future fire station

IMPACT NO. PS-19: Failure to meet fire response standards
IMPACT NO. L-16: Inconsistent with Policy SD-2
IMPACT NO. L-17: Inconsistent with Policy SD-6

Mitigation Measure No. PS-J: Increase RFD equipment/staffing to decrease RFD response times

IMPACT NO. PS-19: Failure to meet fire response standards
IMPACT NO. L-16: Inconsistent with Policy SD-2
IMPACT NO. L-17: Inconsistent with Policy SD-6

Mitigation Measure No. PS-K: Develop senior-oriented programs and facilities

IMPACT NO. PS-22: Increased demand for senior services

Mitigation Measure No. PS-L: Establish an onsite informal library facility

IMPACT NO. PS-23: Increased demand for library services
IMPACT NO. L-11: Inconsistent with Policy FB-4

Mitigation Measure No. PS-M: Establish a library computer link

IMPACT NO. PS-23: Increased demand for library services
IMPACT NO. L-11: Inconsistent with Policy FB-4

Mitigation Measure No. PS-N: Participate in new City-wide fee for public facilities, including libraries, which may be implemented in the future

IMPACT NO. PS-23: Increased demand for library services
IMPACT NO. L-11: Inconsistent with Policy FB-4

Mitigation Measure No. T-A: Update transportation CIP to widen Fiddyment Road and Walerga Road at the intersection to provide two through lanes in each direction, separate left-turn pockets and an exclusive northbound right-turn lane

IMPACT NO. T-1: Reduction in level of service to LOS "F" at the intersection of Fiddyment Road and Baseline Road
IMPACT NO. L-7: Inconsistent with Policy CB-1

Mitigation Measure No. T-B: Update transportation CIP to provide a second northbound left-turn lane at the intersection of Washington Boulevard and Pleasant Grove Boulevard

IMPACT NO. T-2: Reduction in level of service to LOS "D" at the intersection of Washington Boulevard and Pleasant Grove Boulevard
IMPACT NO. L-7: Inconsistent with Policy CB-1

Mitigation Measure No. T-C: Update transportation CIP to provide offsite extension of Junction Boulevard

IMPACT NO. T-3: Reduction in level of service to LOS "D" at the intersection of Pleasant Grove Boulevard and Foothills Boulevard
IMPACT NO. L-7: Inconsistent with Policy CB-1

Mitigation Measure No. T-D: Update transportation CIP and traffic fees to include the Proposed Project

IMPACT NO. T-4: Acceleration in timing of roadway improvements required under the CIP
IMPACT NO. L-7: Inconsistent with Policy CB-1

Mitigation Measure No. T-E: Provide enhanced golf cart crossings

IMPACT NO. T-5: Potential conflict between golf carts and motor vehicles

Mitigation Measure No. T-F: Provide golf cart signage at community entrances

IMPACT NO. T-5: Potential conflict between golf carts and motor vehicles

Mitigation Measure No. T-G: Provide dedicated passenger shuttle or transit vehicle service

IMPACT NO. T-6: Increased demand for Dial-A-Ride services to and from the Proposed Project

Mitigation Measure No. V-A: Maintain high aesthetic standards for Proposed Project through Development Guidelines and Standards

IMPACT NO. V-3: Decrease in visual quality due to loss of visual diversity associated with variations and contrasts

Mitigation Measure No. V-B: Screen/sensitively store construction equipment and materials

IMPACT NO. V-4: Adverse effects on visual quality with equipment operations, dust generation and equipment/materials storage during construction