Draft Environmental Impact Report

for the

CARSON CREEK SPECIFIC PLAN

EL DORADO COUNTY

State Clearinghouse No. 94072021

VOLUME I

May 1996

Michael Brandman Associates

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SECTION 1
INTRODUCTION

1.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

This document is a program environmental impact report (EIR), prepared in accordance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. State CEQA Guidelines §15168(a)(3) describes a program EIR as one which "may be prepared on a series of actions that can be characterized as one large project and are related ... in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program."

This EIR has been prepared to evaluate, at a program level, the impacts associated with mixed-use development guided by the Carson Creek Specific Plan, which has been developed for a site located in the unincorporated community of El Dorado Hills, in El Dorado County, California. CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority. When a project could have a significant effect (i.e., substantial and adverse) on the environment, the agency with primary responsibility over the approval of the project (the lead agency) is required to prepare an EIR. El Dorado County is the lead agency for the Carson Creek Specific Plan project.

The evaluation of projects for their effects on the environment is required by CEQA (Public Resources Code §21000 *et seq.*) and the State CEQA Guidelines (14 California Code of Regulations §15000 *et seq.*), as amended. An EIR is a full disclosure, public information document that evaluates the potential environmental impacts of a proposed project, identifies measures to mitigate impacts whenever feasible, and discusses alternatives to the project that can reduce or avoid environmental effects. As stated in State CEQA Guidelines §15121:

> An EIR is an informational document which will provide public agency decision-makers and the public generally of the significant environmental effect of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information which may be presented to the agency (when considering whether to approve a project).

This EIR is an informational document used in the planning or decision-making process. It is not the purpose of an EIR to recommend either approval or denial of a project. CEQA requires the decision-makers to balance the benefits of a proposed project against its unavoidable environmental risks. After reviewing this EIR and the project proposal, the El Dorado County Planning Commission will recommend to the Board of Supervisors, through a majority vote in a public hearing, whether to approve

or deny the project. The Board of Supervisors will then review this EIR, the project proposal, public testimony and the Planning Commission's recommendation and decide, through a majority vote in a public hearing, whether to approve or deny the project.

If environmental impacts are identified as significant and unavoidable, El Dorado County may still approve the project if it believes that social, economic, or other benefits outweigh the unavoidable impacts. The County would then be required to state in writing the specific reasons for approving the project based on information in the EIR and other information in the public record. This reasoning, per State CEQA Guidelines §15093, is called a "statement of overriding considerations." On the other hand, the County may determine that, although some impacts are indicated in the EIR as mitigated to a less-than-significant level, the residual impacts are still unacceptable (or that the unavoidable significant impacts are unacceptable) when compared with the benefits of the project; in this case the County may decide not to approve the project.

1.2 EIR ASSUMPTIONS

The Carson Creek Specific Plan EIR is based on the following key assumptions:

1. The property immediately west of the project site in Sacramento County will remain in agricultural use.
2. The approved Rancho Dorado and Joerger Ranch (now known as "Springfield Ranch") projects will be built out.
3. The El Dorado Hills Business Park will continue to build out in accordance with its originally adopted plan.
4. The El Dorado Hills Specific Plan will be partly built out, and continuing with development in accordance with its originally adopted specific plan.

1.3 FREQUENTLY USED RESOURCE DOCUMENTS

The Carson Creek Specific Plan EIR relies, in part, on data, environmental evaluations, mitigation measures, and other components of EIRs and technical reports prepared for similar projects, projects in the vicinity of Carson Creek, or for El Dorado County as a whole. The following documents are available for public inspection at the El Dorado County Planning Department located at 2850 Fairlane Court, Placerville, California 95667.

El Dorado County General Plan (Volumes I and II). January 1996. El Dorado County.

El Dorado County General Plan Final Environmental Impact Report (Volumes I through V). December 1995. El Dorado County.

El Dorado County General Plan Update Supplement to the Draft EIR. September 1995. El Dorado County.

El Dorado County General Plan Update Draft Environmental Impact Report. December 1994. El Dorado County.

El Dorado Hills Specific Plan. July 18, 1988. El Dorado County Community Development Department.

El Dorado Hills Specific Plan Draft Environmental Impact Report. October 1987. El Dorado Community Development Department.

1.4 EFFECTS FOUND NOT TO BE SIGNIFICANT

In accordance with CEQA, a good faith effort has been made during the preparation of this draft EIR (DEIR) to contact affected agencies, organizations, and persons who may have an interest in this project. El Dorado County submitted the Notice of Preparation (NOP) of this EIR (Appendix A) to the California Office of Planning and Research on July 8, 1994. The purpose of the NOP was to solicit comments from public agencies on issues germane to that agency that should be considered in the DEIR. Based on the understanding of the proposed project and comments received on the NOP, the proposed project has the potential to result in significant impacts. This EIR, therefore, addresses a comprehensive set of issues, as listed below, and does not exclude analysis of any environmental issue category found on the State CEQA Guidelines Environmental Checklist Form. Issues addressed in this EIR are as follows:

- geology and soils
- air quality
- water quality and hydrology
- biological resources
- noise
- light and glare
- land use
- natural resources
- risk of upset/human health and safety
- population and housing
- transportation and circulation
- public services (fire, police, schools, parks and recreational facilities, ambulance services, solid waste disposal)
- energy
- utilities and service systems (natural gas, electricity, cable television, telephone, water, wastewater, solid waste)
- aesthetics

- cultural resources
- cumulative impacts

1.5 INTENDED USES OF THE EIR

This EIR is intended to be used by El Dorado County as an informational resource to assist in determining the environmental impacts associated with implementation of the Carson Creek Specific Plan. It will also be used by responsible agencies and interested parties as a public information resource, and as a vehicle to communicate with officials and decision-makers (e.g., El Dorado County Planning Commission, and Board of Supervisors) regarding the proposed project. Key approvals which would be necessary for the proposed project, and upon which this EIR is to be used for include:

- pre-zoning and zoning of property within the specific plan area
- multi-family/commercial design review
- tentative and final subdivision or parcel maps
- conditional use permits
- annexation/reorganization of special districts
- grading permits
- building permits
- Department of Fish and Game 1600 agreement(s)
- U.S. Army Corps of Engineers 404 permit(s)
- Regional Water Quality Control Board NPDES permit
- Service District annexations

1.6 TERMINOLOGY USED IN THE EIR

The EIR includes the following terminology to denote the significance of environmental impacts of the proposed project:

- Less-than-Significant Impact: A less-than-significant impact is one that would not result in a substantial and adverse change in the environment. This impact level does not require mitigation measures.

- Beneficial Impact: A beneficial impact is one that would result in a positive contribution or improvement in environmental conditions. This impact level does not require mitigation measures.

- Significant Impact: CEQA §21068 defines a significant impact as that which has "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project." Levels of significance can vary by project, based on the change in the existing physical condition and the " ... substantial body of opinion that considers or will consider the effect to be adverse ...." Appendix G of the State CEQA Guidelines provides a list of consequences that would normally be regarded as

having a significant effect on the environment. This EIR uses the CEQA definition of significant impacts. Mitigation measures or alternatives to the proposed project must be provided in an attempt to reduce the magnitude of significant impacts.

- Potentially Significant Impact: A potentially significant impact is one that, if it were to occur, would be considered a significant impact as described above; however, the occurrance of the impact cannot be immediately determined. For example, while the EIR may provide evidence that buried archaeological resources could be found in a particular location, the actual discovery cannot be determined until the time of project construction. For CEQA purposes, a potentially significant impact is treated (e.g., mitigated) as if it were a significant impact.

- Significant and Unavoidable Impact: A significant and unavoidable impact is one that would result in a substantial adverse effect on the environment which could not be mitigated to a less-than-significant level. A project could still proceed with significant unavoidable impacts, but the County would then be required to prepare a Statement of Overriding Considerations, pursuant to State CEQA Guidelines §15093, which would explain why the County would proceed with the project despite the occurrence of the impacts.

- Threshold of Significance: A criterion established by the lead agency to define at what level an impact would be considered significant; i.e., if an impact exceeds a threshold, then it would be considered signficant. A criterion is defined by a lead agency based on examples found in CEQA or the State CEQA Guidelines, scientific and factual data relative to the lead agency jurisdiction, views of the public in affected areas, the policy/regulatory environment of affected jurisdictions, and other factors.

The EIR also identifies mitigation measures. State CEQA Guidelines §15370 defines mitigation as:

a. avoiding the impact altogether by not taking a certain action or parts of an action;
b. minimizing impacts by limiting the degree or magnitude of the action and its implementation;
c. rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
d. reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
e. compensating for the impact by replacing or providing substitute resources or environments.

1.7 EIR ORGANIZATION

This EIR is organized into Sections as identified and briefly described below:

- Section 1, Introduction: Regulatory background, context for, and organization of, the EIR.

- Section 2, Summary: Table-style summary of potential environmental impacts, mitigation measures, and level of significance after mitigation (as fully described in Section 4), with introductory discussion.

- Section 3, Project Description: Historical development, and full description of the proposed project and development context, and project objectives.

- Section 4, Environmental Setting, Impacts, and Mitigation Measures: Evaluation of the change in environmental conditions that would occur with implementation of the proposed project; thresholds applied toward, and subsequent determination of, levels of significance of impacts; mitigation measures and their effectiveness; and levels of significance after mitigation.

- Section 5, Fiscal Analysis: Revenues and service costs of the proposed project are presented in a format similar to the County's budget. The net fiscal surplus or deficit of the proposed project is identified.

- Section 6, Alternatives: Comparison of environmental impacts of alternatives which could reduce potentially significant impacts to the proposed project while meeting the lead agency's and applicant's basic objectives for the project.

- Section 7, Other CEQA-Required Sections: CEQA-mandated sections including growth inducement, cumulative impacts, and irreversible and irretrievable commitment of resources.

- Section 8, References and Personal Communications: Record of references used, and personal contacts made with persons and agencies during preparation of the EIR;

- Section 9, Report Preparation, Organizations, and Persons Consulted: Identification of lead agency, responsible agencies, consultants, and others involved with preparation of the EIR.

- Section 10, List of Acronyms: Full text of acronyms used in the EIR.

- Appendices: Various technical reports, letters, official publications, etc., summarized or otherwise used for preparation of the EIR.

SECTION 2
EXECUTIVE SUMMARY

2.1 INTRODUCTION

This summary section is provided in accordance with State CEQA Guidelines §15123. This summary is intended to highlight major areas of importance in the environmental analysis for decision-makers and the public. The Executive Summary includes a brief synopsis of the proposed project and alternatives, areas of known controversy, and issues to be resolved. Table 2-1 (later in this section) includes a summary of the potential environmental impacts, their level of significance, mitigation measures, and level of significance after mitigation.

2.2 SUMMARY OF THE PROJECT DESCRIPTION

The proposed Carson Creek Specific Plan encompasses approximately 710 acres in western El Dorado County, adjacent to the Sacramento County line. The project site is located south of U.S. Highway 50 in the unincorporated community of El Dorado Hills, which lies in an area known as the Great Valley at the base of the lower foothills of the Sierra Nevada. The City of Sacramento is located approximately 25 miles west of the project site. Placerville, the municipal headquarters for El Dorado County, is located approximately 18 miles east of the site. Currently, the site supports agricultural uses consisting predominantly of cattle grazing. The primary natural feature onsite is Carson Creek, which drains much of the El Dorado Hills area of western El Dorado County.

The proposed project is a specific plan for the development of mixed uses. A specific plan is a tool used to create land use plans, guidelines, and sometimes - as in this case - development standards and regulations. The Specific Plan is proposed to include: a mix of approximately 2,701 housing units with densities ranging from 3 du/acre to 20 du/acre; 13.8 acres (240,000 square feet) of commercial uses; 48.4 acres (843,000 square feet) of research and development uses; up to two schools (elementary and possibly middle); 31.2 acres of parks; and 142.8 acres of open space. The Specific Plan is intended to protect unique open space, provide new jobs near a wide range of housing types, and designate park and recreational facilities.

2.3 SUMMARY OF ALTERNATIVES TO THE PROPOSED PROJECT

The impacts anticipated from four alternatives to the proposed project are evaluated in Section 6 of this EIR. These alternatives were evaluated to determine if significant project effects anticipated with site development could be reduced to a less-than-significant level through the application of alternative

development approaches. The five alternatives include: the No Project Alternative, with no development occurring on the project site; the Less-Intensive Alternative, with lower intensity development on the project site; the Alternative Use; the Open Space Alternative; and the Alternative Site. Other than the No Project Alternative, the Alternative Use was identified as the environmentally superior alternative. However, this alternative would not meet all of the basic objectives of El Dorado County or the project applicant for the proposed project.

2.4 AREAS OF CONTROVERSY, ISSUES RAISED, AND AREAS RESOLVED IN THE EIR

A Notice of Preparation (NOP) for the Carson Creek Specific Plan EIR was circulated for public review on June 30, 1994, in accordance with State CEQA Guidelines §15082(a). Interested persons or agencies were encouraged to comment regarding the scope and content of the EIR. The NOP contained a summary of the probable environmental effects of the proposed project. The NOP and comments received are contained in Appendix A of this EIR. The public review period for the NOP ended on August 25, 1994.

The EIR addresses the areas of environmental controversy and environmental issues to be resolved that are known the El Dorado County or were raised by agencies or interested parties during public review of the NOP. The following summarizes the primary areas of controversy and issues to be resolved related to the proposed Specific Plan.

LAND USE

- conversion of agricultural land
- consideration of a church site
- alteration of rural nature

AESTHETICS

- visual compatibility between Springfield Meadows subdivision and proposed uses along White Rock Road
- light and glare impacts
- appearance of proposed detention ponds

POPULATION, EMPLOYMENT, AND HOUSING

- affordable housing impacts
- jobs/housing balance

TRAFFIC AND CIRCULATION

- traffic impacts to U.S. Highway 50 interchanges
- intersection traffic impacts
- light rail
- bus transit
- cumulative traffic impacts

AIR QUALITY

- construction fugitive dust emissions
- long-term emissions
- local mobile source carbon monoxide impacts
- airborne toxic pollutants, if any
- potential odor impacts from existing El Dorado Hills Wastewater Treatment Plant
- residential fireplace emissions

NOISE

- potential noise impacts from existing El Dorado Hills Wastewater Treatment Plant
- traffic noise contours
- mobile and stationary noise impacts

BIOLOGICAL RESOURCES

- setbacks from onsite streams
- preservation of riparian habitats
- fragmentation of ecological communities
- impact to species associated with serpentine soils
- impacts to sensitive species
- indirect impacts on wildlife (e.g., pets, automobiles)
- wildlife movement impacts

EARTH RESOURCES

- potential blasting

HYDROLOGY AND WATER QUALITY

- required storm water permits
- flooding hazards
- increased stormwater/runoff flows
- effects on surface water quality
- funding, use, and maintenance of detention basins
- effects on downstream drainage and water quality
- potential for groundwater recharge to occur via detention basins

CULTURAL RESOURCES

- direct, indirect, and cumulative impacts on cultural resources

SCHOOLS

- impacts to El Dorado Unified High School District
- impacts to Latrobe School District
- impacts to Buckeye Unified School District
- developer fees
- cumulative impacts

FIRE PROTECTION AND AMBULANCE SERVICES

- conformity with applicable state and local fire codes
- increased demand for fire and ambulance

LAW ENFORCEMENT

- increased demand for officers

SOLID WASTE DISPOSAL

- cumulative landfill impacts
- curb-side collection

PARKS, RECREATION, AND COMMUNITY SERVICES

- provision of open space along Carson Creek corridor
- linear parks and trails
- annexation into the El Dorado Hills Community Services District

WATER SERVICE

- water supply
- onsite and offsite water plans

WASTEWATER SERVICE

- onsite and offsite sewer plans
- capacity of El Dorado Hills Wastewater Treatment Plant and expansion plans

ELECTRICITY AND NATURAL GAS

- energy consumption

RISK OF UPSET

- air quality, public safety, groundwater impacts from onsite hazards

While all of the issues that were raised during circulation of the NOP contain important points, this EIR only considers those issues associated with the significant or potentially significant environmental impacts associated with approval and implementation of the Carson Creek Specific Plan.

2.5 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Section 4 of this EIR describes in detail the environmental impacts that would result from implementation of the Carson Creek Specific Plan. Table 2-1 summarizes impacts of the proposed project, their level of significance, mitigation measures, and the impact level of significance after mitigation. Impacts that are noted in the table as "significant" after mitigation will require the Lead Agency to prepare findings and a "statement of overriding considerations," if the project is approved as proposed (CEQA §21081). A statement of overriding considerations is a statement by the decision makers identifying that significant unavoidable environmental impacts are acceptable when balanced against certain social and economic considerations.

Impacts of the proposed project are classified as: (1) less than significant (adverse effects that are not substantial according to CEQA, but may include mitigation); (2) significant or potentially significant (substantial adverse changes in the environment that can be reduced to less than significant with mitigation measures); and (3) significant and unavoidable (substantial adverse changes in the environment that can not be reduced with mitigation measures to less than significant). Growth-inducing impacts, cumulative impacts, significant irreversible environmental effects, and significant unavoidable environmental impacts are discussed separately in Section 7 (Other CEQA Required Sections) of this EIR.

TABLE 2-1
EXECUTIVE SUMMARY

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
LAND USE (SECTION 4.2)		
4.2-1: LAND USE. The proposed project would convert the site from predominantly open space and vacant uses to urban development. Since cattle grazing is a temporary use, and relocation of existing residential is not required, the conversion of land is considered a less-than-significant impact.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.2-2: LAND USE COMPATIBILITY. Project development along the northern project boundary would be residential, as are existing uses to the north and across White Rock Road. The project would be located behind a 30-foot landscaped greenbelt. Development along the east would be across from similar land uses, or buffered with setbacks and a 30-foot landscape area. Development in southern areas would be similar to uses offsite, and south. Given these considerations, less-than-significant land use compatibility impacts would occur with development of the Specific Plan.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.2-3: GENERAL PLAN CONSISTENCY. The proposed project would be consistent with General Plan strategies 1, 3, 6, 7, and 8; it would, however, be inconsistent with strategy 4 with regard to fully funding its own services. The Specific Plan would be generally consistent with General Plan Concepts, but inconsistent with one Plan Concept until annexation into special districts is approved. It would be consistent with land use element Goal 2.1, Objectives 2.1.1 and 2.2.2, and Policies 2.1.1.2, 2.1.1.3, 2.1.4.1, 2.1.4.2, 2.1.4.3, 2.1.4.4, 2.1.4.5, 2.1.4.6, 2.1.4.9, and 2.2.2.6; it would, however, be inconsistent with Objective 2.1.4	Apply mitigation measures 4.14-1, 4.14-2, 4.16-1, 4.18-1, 5-1, and 5-3 and no further mitigation is required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
LAND USE (SECTION 4.2) *continued*		
until annexations into special districts are approved. General Plan inconsistencies are considered a significant impact.		
4.2-4: ZONING CONSISTENCY. The proposed project would itself establish zoning for the project area and, therefore, inconsistencies would not result. This is considered a less-than-significant impact.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.2-5: CONSISTENCY WITH SPECIAL DISTRICTS. The southern portion of the project site is currently located inside CSA No. 9, Zone 17, and outside of EID, and the El Dorado Hills County Water Fire District. It is outside, and discontiguous to, the El Dorado Hills CSD. Until LAFCO approval for de-annexation and annexations are complete, the site is not located within appropriate service districts. This would be a significant impact.	Apply mitigation measures 4.14-1, 4.14-2, 4.16-1, 4.18-1, 5-1, and 5-3 and no further mitigation is required.	LESS THAN SIGNIFICANT
4.2-6: CONSISTENCY WITH AGRICULTURAL PRESERVES. A notice of nonrenewal was filed on the southern portion of the project site, the only portion under a Williamson Act contract. Implementation of the proposed project does not effect the Williamson Act status and, consequently, a less-than-significant impact to agricultural preserves would result.	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
AESTHETICS (SECTION 4.3)		
4.3-1: U.S. HIGHWAY 50. Views from U.S. Highway 50 to the project site would not be substantially altered with the proposed project because of existing limitations in view accessibility, and because what is observed would not be noticeably different than what exists. This is a less-than-significant impact.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.3-2: WHITE ROCK ROAD AT MANCHESTER LANE. Views of the project site along White Rock Road at Manchester Lane are unobstructed, and predominantly include gently sloping, undeveloped terrain. Views of undeveloped land would be substantially altered by proposed development. A 30-foot wide heavily landscaped greenbelt would reduce these impacts but not to a less-than-significant level. This impact would be considered significant.	a) Use a majority of native plant species in the proposed 30-foot greenbelt to maximize a compatible visual relationship with residential uses to the north, and with the surrounding natural terrain and vegetation. b) Require use of natural colored roof materials in project development to maximize consistency with the surrounding natural environment to minimize stark visual contrasts. c) Use natural components in fencing materials (e.g., wood, stone, brick) that would be consistent with residential uses to the north, and would enhance visual compatibility with the natural surroundings of the site.	SIGNIFICANT AND UNAVOIDABLE
4.3-3: WHITE ROCK ROAD AT EL DORADO/ SACRAMENTO COUNTY LINE. Open views of undeveloped, gently sloping land along White Rock Road near the Sacramento County border would be substantially altered by introduction of new project development. A 30-foot wide heavily landscaped greenbelt would reduce the visual effects of urban development, but obstruction of the site would occur. This impact would be considered significant.	Apply mitigation measure 4.3-2 and no other mitigation is available.	SIGNIFICANT AND UNAVOIDABLE

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
AESTHETICS (SECTION 4.3) *continued*		
4.3-4: LATROBE ROAD AT GOLDEN FOOTHILLS PARKWAY. Views of the project site would not be substantially altered from Latrobe Road in this area due to distance and viewing limitations from topography. This impact would be less than significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.3-5: GOLDEN FOOTHILLS PARKWAY AT CARSON CREEK. The primary aesthetic feature, Carson Creek, would remain unaltered with the proposed project. Nonetheless, development on surrounding land would be a substantial and adverse change in existing conditions. This would be a significant impact.	a) Use native plant species as the majority of those planted in the proposed 30-foot greenbelt to maximize a compatible visual relationship with the surrounding natural terrain and vegetation. b) Require use of natural colored roof materials in project developments to maximize consistency with the surrounding natural environment and to minimize stark visual contrasts. c) Use natural components in fencing materials (e.g., wood, stone, brick) in developments along Carson Creek to enhance visual compatibility with the natural surroundings of the site. d) Use natural components in pedestrian trail features (e.g., fences, trail materials) to enhance visual compatibility with the natural surroundings of the site. e) Retain unobstructed views of Carson Creek from locations along Golden Foothills Parkway.	SIGNIFICANT AND UNAVOIDABLE
4.3-6: LATROBE ROAD AT INVESTMENT BOULEVARD. Uses on Carson Creek would occur behind existing vacant land, landscaping, and business park uses. Carson Creek development would be indistinguishable from that of the El Dorado Hills Business Park because they would be the same use. Project development	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
AESTHETICS (SECTION 4.3) ***continued***		
would result in impacts considered to be less than significant.		
4.3-7: GENERAL PLAN CONSISTENCY. With regard to visual/aesthetic issues, the proposed project would be consistent with General Plan Goals 2.3 and 2.5, and Objective 2.5.1 and related Policies 2.5.1.1 and 2.5.1.2. Project consistency would be a less-than-significant impact.	No mitigation measures are required.	LESS THAN SIGNIFICANT
POPULATION, EMPLOYMENT, AND HOUSING (SECTION 4.4)		
4.4-1: POPULATION. Development of the proposed project would increase household population by up to approximately 7,565. This projected population increase does not represent a substantial deviation from County projections. Therefore, this impact is considered less than significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.4-2: SHORT-TERM CONSTRUCTION EMPLOYMENT. Construction activities associated with the proposed Specific Plan could result in approximately 200 employees at any given time during the estimated 15-year construction period. This increase in construction jobs would improve the existing job-housing ratio in unincorporated areas of El Dorado County. This impact would be considered beneficial and therefore, less than significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.4-3: LONG-TERM PERMANENT EMPLOYMENT. Implementation of the proposed Specific Plan would	No mitigation measures are required.	LESS THAN SIGNIFICANT

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
POPULATION, EMPLOYMENT, AND HOUSING (SECTION 4.4) *continued*		
result in the generation of approximately 3,972 jobs compared to approximately 2,917 employed residents. Since the proposed Specific Plan would generate more jobs than employed residents, the project would improve the jobs-to-housing ratio in unincorporated western El Dorado County. Therefore, the project impact on employees and the jobs-to-housing ratio is considered less than significant.		
4.4-4: HOUSING. Implementation of the proposed Specific Plan would result in the increase of up to 2,701 housing units. This increase is expected to improve housing affordability in the El Dorado Hills area. In addition, this increase does not represent a substantial deviation from County housing projections in unincorporated areas. Therefore, housing impacts are considered less than significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.4-5: GENERAL PLAN CONSISTENCY - AVAILABILITY AND AFFORDABILITY OF HOUSING. The proposed Specific Plan would provide approximately 2,701 housing units on the project site and would allow construction of small lot single-family homes, duplexes, multi-plexes, and apartments. The provision of these types of units would increase availability and affordability of housing in the County. This would be considered a less than significant impact.	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
TRAFFIC AND CIRCULATION (SECTION 4.5)		
4.5-1: DAILY TRAFFIC VOLUME (LATROBE ROAD BETWEEN U.S. HIGHWAY 50 AND WHITE ROCK ROAD). Buildout of the proposed Specific Plan would increase daily traffic volumes on Latrobe Road, resulting in a deterioration of LOS from C to F between U.S. Highway 50 and White Rock Road. Because projected level of service north of White Rock Road would exceed the County's standard, this would be considered a significant impact.	The project developer shall be responsible for their "fair-share" cost of widening Latrobe Road from two lanes to six lanes with a median from White Rock Road to the U.S. Highway 50 eastbound ramps. These improvement projects are included in the El Dorado Hills RIF; therefore, the project developer shall pay the RIF fee prior to the issuance of building permits. Implementation of this mitigation measure would improve the daily level of service on Latrobe Road to LOS B.	LESS THAN SIGNIFICANT
4.5-2: DAILY TRAFFIC VOLUME (LATROBE ROAD SOUTH OF WHITE ROCK ROAD). Buildout of the proposed Specific Plan would increase daily traffic volumes on Latrobe Road south of White Rock Road resulting in a deterioration of LOS from C to E between White Rock Road and Investment Boulevard and from A to C south of investment boulevard. Because the LOS would not exceed the County's LOS E standard, these impacts would be considered less than significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.5-3: DAILY TRAFFIC VOLUME (WHITE ROCK ROAD). Buildout of the proposed Specific Plan would increase daily traffic volumes on White Rock Road, resulting in a deterioration of LOS from B to D between Latrobe Road and the proposed project access and from B to C west of the proposed project access. Less than 400 daily trips would also be added to White Rock Road east of Latrobe Road resulting in continued LOS A operations. Because the projected LOS along White Rock Road would be E or better, these impacts would be considered less than significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
TRAFFIC AND CIRCULATION (SECTION 4.5) *continued*		
4.5-4: DAILY TRAFFIC VOLUME (EL DORADO HILLS BOULEVARD). Buildout of the proposed Specific Plan would increase daily traffic volumes on El Dorado Hills Boulevard north of U.S. Highway 50. Because roadway LOS would remain at A, this impact would be considered less than significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.5-5: PEAK-HOUR TRAFFIC VOLUMES (U.S. HIGHWAY INTERCHANGE). Buildout of the proposed Specific Plan would increase peak hour traffic volumes along U.S. Highway 50 at the El Dorado Hills Boulevard/Latrobe Road interchange. Because all four ramps are projected to operate at LOS F under peak hour traffic, this would be considered a significant impact.	The project developer shall be responsible for contributing their "fair-share" of the cost to reconstruct the El Dorado Hills Boulevard/Latrobe Road interchange and widen U.S. Highway 50 to six lanes as shown in Exhibit 4.5-10. Reconstruction of the interchange is included in the RIF; therefore, the project developer shall pay the RIF fee prior to the issuance of building permits. A separate impact fee program has been established to fund the mainline widening of U.S. Highway 50 through the western portion of El Dorado County. A fair-share contribution of this fee shall also be paid by the project developer prior to the issuance of building permits. Implementation of this mitigation measure will improve the ramp intersection and ramp junction levels of service as follows: • El Dorado Hills Boulevard/U.S. Highway 50 westbound ramps intersection - LOS from F to B during the a.m. peak hour and from E to C during the p.m. peak hour; • Latrobe Road/U.S. Highway 50 eastbound ramps intersection LOS from F to B during the a.m. peak hour and from F to B during the p.m. peak hour;	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
TRAFFIC AND CIRCULATION (SECTION 4.5) *continued*		
	• U.S. Highway 50 eastbound diagonal on-ramp - LOS A during the a.m. peak hour and LOS D during the p.m. peak hour; • U.S. Highway 50 eastbound loop off-ramp - LOS B during the a.m. peak hour and LOS D during the p.m. peak hour; • U.S. Highway 50 westbound diagonal on-ramp - LOS C during the a.m. peak hour and LOS B during the p.m. peak hour; and • U.S. Highway 50 westbound diagonal off-ramp - LOS C during the a.m. peak hour and LOS B during the p.m. peak hour. Reconstruction of the interchange may also include the addition of a eastbound diagonal off-ramp and westbound loop off-ramp. Both of these new ramps would also operate at LOS D or better during both peak hours.	
4.5-6: PEAK-HOUR TRAFFIC VOLUMES (LATROBE ROAD INTERSECTIONS). Buildout of the proposed Specific Plan would increase a.m. and p.m. peak-hour traffic volumes along Latrobe Road, resulting in levels of service that exceed the County's LOS E standard at four intersections. This would be considered a significant impact.	The following mitigation measures address the four intersections along Latrobe Road that are projected to operate at unacceptable (worse than LOS E) levels of service with buildout of the Specific Plan. a) In addition to mitigation measure 4.5-1, the project developer shall be responsible for their "fair-share" cost of signalization and turn lane improvements at the White Rock Road/Latrobe Road intersection as shown on Exhibit 4.5-11. Signalization of this intersection is	LESS THAN SIGNIFICANT

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
TRAFFIC AND CIRCULATION (SECTION 4.5) *continued*		
	currently included in the RIF program; therefore, the project developer shall pay the RIF fee prior to the issuance of building permits. Implementation of this mitigation measure would improve the White Rock Road/Latrobe Road intersection LOS from F to B during the a.m. peak hour and from F to C during the p.m. peak hour. b) The project developer shall be responsible for their "fair-share" cost of signalization and turn lane improvements at the Latrobe Road/Golden Foothill Parkway North intersection as shown on Exhibit 4.5-11. El Dorado County shall include this project in the Traffic Impact Mitigation (TIM) program and the project developer shall pay the updated TIM fee prior to the issuance of building permits. Implementation of this mitigation measure would improve the Latrobe Road/Golden Foothill Parkway North intersection LOS from F to B during the a.m. peak hour and from F to D during the p.m. peak hour. c) The project developer shall be responsible for their "fair-share" cost of signalization and turn lane improvements at the Latrobe Road/Golden Foothill Parkway South intersection as shown on Exhibit 4.5-11. El Dorado County shall include this project in the updated TIM fee and the project developer shall pay the fee prior to the issuance of building permits. Implementation of this mitigation measure would improve the Latrobe Road/Golden Foothill Parkway South intersection LOS from F to B during the a.m. and from F to C during the p.m. peak hours.	

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
TRAFFIC AND CIRCULATION (SECTION 4.5) *continued*		
	d) The project developer shall be responsible for their "fair-share" cost of the following improvements: • Modifying turn lanes at the Latrobe Road/Investment Boulevard intersection (see Exhibit 4.5-11); • Signalizing the Latrobe Road/Investment Boulevard intersection. El Dorado County shall include these improvement projects in the TIM program. The project developer shall pay the updated TIM fee prior to the issuance of building permits. Implementation of this mitigation measure would improve the Latrobe Road/Investment Boulevard intersection LOS from F to B during the a.m. and p.m. peak hours. The Latrobe Road/Investment Boulevard intersection operates at LOS B during the p.m. peak hour with one left-turn lane on the eastbound approach. The left-turn volume is 600 vehicles per hour during the p.m. peak hour. Occasional queuing of vehicles on the left-turn lane could occur on the eastbound approach. The County should monitor the queues and design the left-turn pocket for this movement to accommodate the volumes. If the County decides to provide dual left-turn lanes for this left-turn movement, an additional northbound lane would be required on Latrobe Road between Investment Boulevard and Golden Foothill Parkway South.	

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
TRAFFIC AND CIRCULATION (SECTION 4.5) ***continued***		
4.5-7: PEAK-HOUR TRAFFIC VOLUMES (WHITE ROCK ROAD INTERSECTIONS). Buildout of the proposed Specific Plan would increase traffic volumes along White Rock Road, resulting in peak-hour levels of service that exceed the County's LOS E standard at two intersections (not including intersection with Latrobe Road discussed in Impact 4.5-6). This would be considered a significant impact.	The following mitigation measures address the two intersections along White Rock Road (west of Latrobe Road) that are projected to operate at LOS F with buildout of the Specific Plan. a) The project developer shall be responsible for their "fair-share" cost of signalization and turn lane improvements at the White Rock Road/Payen Road intersection as shown on Exhibit 4.5-11. Since this intersection is located in Sacramento County, El Dorado County shall be responsible for executing an agreement with Sacramento County to share in the cost of signalization. El Dorado County's share of the cost shall be included in the TIM program and the project developer shall pay the updated TIM fee prior to the issuance of building permits. Implementation of this mitigation measure would improve the White Rock Road/Payen Road intersection LOS from F to B during the a.m. and p.m. peak hours. b) The project developer shall be responsible for their "fair-share" cost of signalization and turn lane improvements at the White Rock Road/Project Access Road intersection as shown on Exhibit 4.5-11. El Dorado County shall include this project in the TIM program and the project developer shall pay the updated TIM fee prior to the issuance of building permits. Implementation of this mitigation measure would improve the White Rock Road/Project Access Road intersection LOS from D to B during the a.m. peak hour and from F to C during the p.m. peak hour. This intersection was analyzed with lane configuration as	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
TRAFFIC AND CIRCULATION (SECTION 4.5) *continued*		
	shown in Exhibit 4.5-11. For a worst case scenario, this analysis assumed that all the project traffic traveling on White Rock Road would use this intersection to access the site resulting in a westbound to southbound left-turn volume of approximately 600 vehicles during the p.m. peak hour. This volume is conservative since westbound left-turn access on White Rock Road will be available at one other project driveway according to El Dorado County Department of Transportation staff.	
4.5-8: PUBLIC TRANSIT. Buildout of the proposed Specific Plan would increase demand for public transit service and facilities in western El Dorado County, including fixed route service, commuter service, dial-a-ride service, and park-and-ride lot spaces. To accommodate these trips, Policy 3.9.2.3 and other policies of the El Dorado County General Plan require new development to install bus turnouts, bus shelters, and other public transportation-related improvements where appropriate. Since the Specific Plan does not contain implementation mechanisms for the mass transit station and parking and it does not identify bus turnouts or bus shelters, this impact would be considered significant.	The project developer shall be responsible for the construction of a bus turnout and transit shelter along the project site frontage on White Rock Road when fixed route transit service or commuter service is extended to serve the project. The project developer shall also reserve the land area for the proposed mass transit station and parking area as identified in the Carson Creek Specific Plan. Although not required as part of this mitigation measure, the project developer, El Dorado County Department of Transportation, and the El Dorado County Transit Authority should also develop an implementation plan that identifies the construction phasing and financing for the parking area, other transit shelters within the project site, and the mass transit station. This implementation plan should be approved by El Dorado County Department of Transportation and the El Dorado County Transit Authority prior to the issuance of building permits.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
TRAFFIC AND CIRCULATION (SECTION 4.5) ***continued***		
4.5-9: BICYCLE/PEDESTRIAN FACILITIES. Buildout of the Specific Plan would generate walking and bicycling trips within the project site and vicinity. Although the proposed Specific Plan identifies onsite bicycle and pedestrian facilities, it does not include bike lanes along the project's frontage on White Rock Road as proposed in the El Dorado County Bikeway Master Plan and required by El Dorado County General Plan Policy 3.11.1.1. This General Plan inconsistency would be considered a significant impact.	The project developer shall be responsible for the construction of Class II bike lanes along the project site frontage on White Rock Road prior to the issuance of building permits. Implementation of mitigation measure 4.5-2 includes the construction of Class II bike lanes; therefore, no additional mitigation is necessary.	LESS THAN SIGNIFICANT
4.5-10: CONSISTENCY WITH RELEVANT GENERAL PLAN PROVISIONS. The Specific Plan would be required to comply with relevant El Dorado County General Plan objectives and policies related to transportation and circulation. The Specific Plan would be generally consistent with General Plan provisions, except, as previously discussed, in relation to projected roadway levels of service and the Specific Plan's failure to provide bicycle/pedestrian paths along White Rock Road and bus turnouts/shelters. This would be considered a significant impact.	Apply mitigation measures 4.5-1, 4.5-5 through 4.5-9 and no further mitigation is required.	LESS THAN SIGNIFICANT
AIR QUALITY (SECTION 4.6)		
4.6-1: PHASE I (GRADING PHASE) CONSTRUCTION EMISSIONS. Grading activities associated with the construction of Specific Plan land uses would generate individual, site-specific short-term ROG, NO_x, and PM_{10} emissions that would exceed applicable El Dorado	a) The project applicant shall comply with El Dorado County APCD Rule 223 as required by the Air Pollution Control Officer. Such precautions may include, but are not limited to, the following:	SIGNIFICANT AND UNAVOIDABLE

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
AIR QUALITY (SECTION 4.6) *continued*		
County APCD thresholds. This would be considered a significant and unavoidable short-term impact.	• Application of water or suitable chemicals or other specified covering on materials stockpiles, wrecking activity, excavation, grading, sweeping, clearing of land, solid waste disposal operations, or construction or demolition of buildings or structures (all exposed soil shall be kept visibly moist during grading); • Installation and use of hoods, fans and filters to enclose, collect, and clean the emissions of dusty materials; • Covering or wetting at all times when in motion of open-bodied trucks, trailer or other vehicles transporting materials which create a nuisance by generating particulate matter in areas where the general public has access; • Application of asphalt, oil, water or suitable chemicals on dirt roads; • Paving of public or commercial parking surfaces; • Removal from paved streets and parking surfaces of earth or other material which has a tendency to become airborne; • Limiting traffic speeds on all unpaved road surfaces to 15 mph; • Suspending all grading operations when wind speeds exceed 20 miles per hour (including instantaneous gusts); • Alternate means of control as approved by the Air Pollution Control Officer.	

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
AIR QUALITY (SECTION 4.6) *continued*		
	b) Construction equipment engines shall be maintained in proper operating condition.	
4.6-2: PHASE II (FACILITIES PHASE) CONSTRUCTION EMISSIONS. Construction activities associated with the construction of Specific Plan infrastructure and land uses would generate short-term ROG and NO_x emissions that would exceed applicable El Dorado County APCD thresholds. This would be considered a significant and unavoidable short-term impact.	a) Low emission mobile construction equipment shall be used (e.g., tractor, scraper, dozer, etc.). b) Construction equipment engines shall be maintained in proper operating condition. c) Low-emission stationary construction equipment shall be used. d) A trip reduction plan shall be developed and implemented to achieve 1.5 average vehicle occupancy (AVO) for construction employees. e) Construction activity management techniques, such as extending construction period, reducing number of pieces used simultaneously, increasing distance between emission sources, reducing or changing hours of construction, and scheduling activity during off-peak hours shall be developed and implemented. f) The project applicant shall comply with El Dorado County APCD Rule 224. g) The project applicant shall comply with El Dorado County APCD Rule 215.	SIGNIFICANT AND UNAVOIDABLE
4.6-3: STATIONARY SOURCE EMISSIONS. Buildout of the Specific Plan would result in an increase in long-term regional energy consumption. Projected emissions related to natural gas and residential fireplace emissions would result in exceedances of the El Dorado County	a) The applicant shall incorporate energy-saving design features into future levels of project implementation as feasible and appropriate. The feasibility and appropriateness of each measure can best be determined at future, more-detailed levels of planning. These	SIGNIFICANT AND UNAVOIDABLE

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
AIR QUALITY (SECTION 4.6) *continued*		
APCD thresholds for ROG and NO_x. This would be considered a significant and unavoidable impact.	design features may include, but are not limited to, the following: • Solar or low-emission water heaters; • Central water heating systems; • Shade trees; • Energy-efficient and automated air conditioners; • Double-pane glass in all windows; • Energy-efficient low-sodium parking lot lights; • Adequate ventilation systems for enclosed parking facilities; • Energy-efficient lighting and lighting controls. b) The applicant, future successors in interest, or future homebuilders shall install only EPA-certified woodstoves and fireplaces.	
4.6-4: REGIONAL MOBILE SOURCE EMISSIONS. Buildout of the Specific Plan would result in increased vehicle trips and associated mobile source emissions. Vehicle emissions attributable to buildout of the Specific Plan would result in exceedances of the El Dorado County APCD's ROG, CO, and NO_x significance thresholds. This would be considered a significant and unavoidable impact.	Implementation of mitigation measures 4.5-1, 4.5-2, and 4.5-4 through 4.5-8 would reduce regional mobile source emissions, but not to a less-than-significant level.	SIGNIFICANT AND UNAVOIDABLE
4.6-5: LOCAL MOBILE SOURCE EMISSIONS. Buildout of the Specific Plan would result in increased vehicle	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
AIR QUALITY (SECTION 4.6) *continued*		
trips and associated mobile source emissions. Vehicle emissions attributable to buildout of the Specific Plan would not result in exceedances of state and federal CO standards at modeled intersections. This would be considered a less-than-significant impact.		
4.6-6: ODORS. Buildout of the Specific Plan could result in the exposure of onsite residents, employees, and others to odors emanating from the existing, offsite El Dorado Hills Wastewater Treatment Plant, which is located approximately one-half mile east of the project site along Latrobe Road. However, given the distance from the nearest proposed onsite residential uses to the EDHWTP and the prevailing wind patterns, adverse odor impacts at onsite residential uses would be unlikely. This would be considered a less-than-significant impact.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.6-7: CONSISTENCY WITH RELEVANT GENERAL PLAN PROVISIONS. The proposed Specific Plan would be required to be consistent with relevant El Dorado General Plan objectives and policies related to air quality. No inconsistencies with relevant General Plan air quality provisions are anticipated. This would be considered a less-than-significant impact.	No mitigation measures are required.	LESS THAN SIGNIFICANT
NOISE (SECTION 4.7)		
4.7-1: SHORT-TERM CONSTRUCTION NOISE IMPACTS. Construction activities in the Euer Ranch portion of the project site could potentially cause short-term significant	Construction activities shall be conducted in accordance with the County noise regulation or limited to the following hours and days:	LESS THAN SIGNIFICANT

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
NOISE (SECTION 4.7) *continued*		
noise impacts to residences north of the project site. Although it would be temporary and intermittent, construction noise would be considered a significant short-term impact.	• Between the hours of 7:00 a.m. and 7:00 p.m. on any weekday • Between the hours of 8:00 a.m. and 6:00 p.m. on Saturdays • Prohibited on Sundays and holidays At the time of the letting of the construction contract, it shall be demonstrated that engine noise from excavation equipment would be mitigated by keeping engine doors closed during equipment operation. For equipment that cannot be enclosed behind doors, lead curtains shall be used to attenuate noise.	
4.7-2: INCREASED TRAFFIC NOISE. Traffic noise impacts at existing noise-sensitive receptor locations are anticipated.. The increased traffic noise levels could result in exceedances of the 60 dBA CNEL residential standard at existing offsite and proposed onsite residential uses. Therefore, a significant impact would be anticipated.	Where the development of a project could result in the exposure of noise-sensitive land uses to existing or projected future traffic noise levels in excess of the applicable County noise standards, the County shall require an acoustical analysis to be performed prior to the approval of such projects. Where acoustical analysis determines that the project would contribute to traffic noise levels in excess of applicable County noise standards at proposed onsite or planned future offsite noise sensitive uses, the County shall require the implementation of noise attenuation measures, such as setbacks, sound barrier walls, or noise berms, as necessary to reduce traffic noise levels at proposed noise sensitive uses to conform with the applicable County standards.	LESS THAN SIGNIFICANT
4.7-3: RAILROAD NOISE. Implementation of the proposed Specific Plan could allow for the	Where the development of a project could result in the exposure of noise-sensitive land uses to projected future	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
NOISE (SECTION 4.7) *continued*		
establishment of future light rail service to the project site. Railroad noise could exceed the 60 dBA CNEL standard recommended by El Dorado County for transportation noise exposure at proposed residential units R(10), which would be adjacent to the SPRR tracks. This would be considered a potentially significant impact.	railroad noise levels in excess of the applicable County noise standards, the County shall require an acoustical analysis to be performed prior to the approval of such projects. Where acoustical analysis determines that railroad noise levels would exceed applicable County noise standards at proposed onsite noise sensitive uses, the County shall require the implementation of noise attenuation measures, such as setbacks, sound barrier walls, or noise berms, as necessary to reduce traffic noise levels at proposed noise sensitive uses to conform with the applicable County standards.	
4.7-4: STATIONARY SOURCE NOISE. Noise generated by proposed commercial and research and development uses on the project site and by existing and proposed uses at the adjacent El Dorado Hills Business Park could cause exceedances of the El Dorado County standards for non-transportation noise exposure at proposed onsite residential uses. This would be considered a potentially significant project impact.	Where the development of a project could result in the exposure of onsite noise-sensitive land uses to projected onsite or offsite stationary source noise levels in excess of the applicable County noise standards, the County shall require an acoustical analysis to be performed prior to the approval of such projects. Where acoustical analysis determines that stationary source noise levels would exceed applicable County noise standards at proposed onsite noise sensitive uses, the County shall require the implementation of noise attenuation measures, such as setbacks, sound barrier walls, or noise berms, as necessary to reduce ~~traffic~~ noise levels at proposed noise sensitive uses to conform with the applicable County standards.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
BIOLOGICAL RESOURCES (SECTION 4.8)		
4.8-1 HABITAT LOSS AND FRAGMENTATION. The proposed project would remove approximately 680 acres of non-native annual grassland. This impact would be considered less than significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.8-2: LOSS OF WETLANDS. On Carson Creek Ranch, 9.14 acres of the existing 27.43 acres of wetlands would be lost if the proposed project is implemented. The Specific Plan includes a Wetland Preservation and Compensation Plan that includes measures that would reduce impacts on wetlands to a less-than-significant level. On Euer Ranch, an unverified 1.08 acres of wetland could be lost, although these wetlands appear to fall within areas of the project site proposed for preservation. Wetlands on Euer Ranch are not included under the Wetland Preservation and Compensation Plan. Absent verification, the possible loss of wetlands on Euer Ranch would be considered a potentially significant impact.	a) Prior to issuance of a grading permit, the wetland delineation completed for the Euer Ranch shall be verified by USACE. After verification, any wetlands that would be lost or disturbed shall be replaced or rehabilitated on a "no-net-loss" basis in accordance with USACE mitigation guidelines. El Dorado County has also supported the protection of wetlands as specified in the County's General Plan under Objective 7.4.2. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods agreeable to USACE. b) Prior to issuance of a grading permit, a Streambed Alteration Agreement shall be obtained from CDFG, pursuant to §1600 of the California Fish and Game Code, for each stream crossing and any other activities affecting the bed, bank, or associated riparian vegetation of the stream. If required, the project applicant shall coordinate with CDFG in developing appropriate mitigation, and shall abide by the conditions of any executed permits. c) Grading activities shall incorporate appropriate erosion control measures as provided in the El Dorado County Grading Ordinance. Appropriate runoff controls such as berms, storm grates, detention basins, overflow collection areas, filtration systems, and sediment traps	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
BIOLOGICAL RESOURCES (SECTION 4.8) *continued*		
	shall be implemented to control siltation, and the potential discharge of pollutants into drainages.	
4.8-3: SPECIAL-STATUS PLANTS. Implementation of the proposed project could affect populations of the Bogg's Lake hedge-hyssop (state-listed endangered). The loss of habitat for this special-status plant would be considered a potentially significant impact.	Prior to issuance of a grading permit, habitat on the Euer Ranch that is suitable to support Bogg's Lake hedge-hyssop shall be surveyed. If any significant populations of this species are found in areas proposed for development, a mitigation plan designed to result in a no-net-loss of the species shall be prepared by the project proponent and approved by USFWS. The plan may include measures such as transplantation or revegetation in protected areas onsite. Approval of this plan by USFWS and its implementation by the project proponent would reduce impacts to a less-than-significant level.	LESS THAN SIGNIFICANT
4.8-4: SPECIAL-STATUS WILDLIFE. The loss of habitat potentially supporting special-status wildlife species is not considered a significant impact because all of these species are known to occur at widely scattered locations throughout the region, and limited nesting habitat and prey would preclude large populations from occurring frequently onsite.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.8-5 WILDLIFE MOVEMENT. Implementation of the proposed project would preclude wildlife movement through the site. However, the project would not substantially affect the seasonal migration or home range patterns of deer or any other wildlife species. Impacts on wildlife movement would be considered less than significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
BIOLOGICAL RESOURCES (SECTION 4.8) *continued*		
4.8-6: POST-CONSTRUCTION IMPACTS. Post-construction impacts, including increased vehicular traffic, noise, and pollution, are likely to adversely affect many wildlife species. However, these potential impacts would not significantly reduce any existing wildlife populations.	No mitigation measures are required.	LESS THAN SIGNIFICANT
EARTH RESOURCES (SECTION 4.9)		
4.9-1: LIQUEFACTION. Liquefaction is not likely to occur within most of the project site due to the presence of a thin mantle of soil developed upon firm bedrock. However, there is a low potential for liquefaction to occur within the Carson Creek drainage. This impact would be considered potentially significant to uses (flood control and recreational trails) proposed within these areas.	a) The El Dorado County Department of Transportation (DOT) shall consult with the El Dorado County Planning Department during the grading permit approval process to ensure that earth resources impacts related to development in the Carson Creek Specific Plan area are sufficiently addressed. b) Prior to the approval of a grading permit for development in the Carson Creek drainage, the applicant shall submit to, and receive approval from, the El Dorado County Department of Transportation (DOT) a soils and geologic hazards report meeting the requirements for such reports provided in the El Dorado County Grading Ordinance. If proposed improvements to the Carson Creek drainage would be located in areas identified as susceptible to soils or geologic hazards, proposed improvements to the Carson Creek drainage shall be designed to prevent failure or damage due to such hazards.	LESS THAN SIGNIFICANT
4.9-2: LANDSLIDES. No areas of suspected or potential landsliding were identified on the project site.	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
EARTH RESOURCES (SECTION 4.9) *continued*		
Implementation of the proposed project would result in a less-than-significant impact.		
4.9-3: DIFFERENTIAL COMPACTION/SEISMIC SETTLEMENT. The thin soil mantle developed on bedrock of relatively strong slightly weathered material over much of the site would not be prone to differential compaction or seismic settlement. Differential compaction and seismic settlement is possible, however, within the onsite drainage areas, which would be designated as open space. This impact would be considered significant to proposed improvements (i.e., flood control and recreational) in these areas.	Apply mitigation measure 4.9-1 and no additional measures are required.	LESS THAN SIGNIFICANT
4.9-4: GROUND RUPTURE. Due to the project site's proximity to the West Branch of the Bear Mountains Fault Zone (4,000 feet) and the presence of the Mormon Island Fault Zone on the project site, ground rupture on the project site is possible. This impact would be considered potentially significant.	Prior to the issuance of building permits, all structures shall be designed in accordance with the Uniform Building Code (UBC), Chapter 23. Although wood frame buildings of not more than two stories in height in unincorporated areas are exempt under the California Earthquake Protection Law, structures shall adhere to the design factors presented for UBC Zone 3, as a minimum. Final design standards shall be in accordance with the findings of detailed geologic and geotechnical analyses for proposed building sites. Prior to the approval of subdivision tract maps in the vicinity of the Mormon Island Fault Zone, the location and age of displacements associated with the fault zone shall be determined by geologic mapping and trench logging. Critical structures such as schools shall not be located within the zones of active faulting.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
EARTH RESOURCES (SECTION 4.9) *continued*		
4.9-5: GROUND SHAKING. Because the potential exists for ground accelerations as high as 0.7 g from strong earthquakes along the Bear Mountains Fault Zone near the project site, a low to moderate potential for severe ground shaking exists at the site. The presence of the Mormon Island Fault Zone also creates a potential for ground shaking to occur on the project site. Ground shaking impacts are considered to be potentially significant.	Prior to the issuance of building permits, all structures shall be designed in accordance with the UBC, Chapter 23. Although wood frame buildings of not more than two stories in height in unincorporated areas are exempt under the California Earthquake Protection Law, structures shall adhere to the design factors presented for UBC Zone 3, as a minimum. Final design standards shall be in accordance with the findings of detailed geologic and geotechnical analyses for proposed building sites. Prior to the approval of subdivision maps in the vicinity of the Mormon Island Fault Zone, a ground acceleration analysis shall be conducted for the Mormon Island Fault Zone. All structures shall be designed in accordance with the ground acceleration analysis for the Mormon Island Fault Zone and the onsite ground accelerations anticipated from the Bear Mountains Fault Zone.	LESS THAN SIGNIFICANT
4.9-6: SEICHES. There are currently no bodies of water on the site capable of generating a seiche. Several small flood retention ponds are planned for the project but because they will be dry except during periods of heavy rainfall the potential for seiche-induced impacts would be less-than-significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.9-7: TOPOGRAPHIC ALTERATION (GROUND STABILITY AND EROSION POTENTIAL). Construction activities resulting in ground disturbance could result in a moderate potential for ground instability and erosion. This impact would be considered potentially significant.	Prior to the issuance of grading permits, grading design plans shall incorporate the findings of detailed geologic and geotechnical investigations. These findings all include methods to control soil erosion and ground	LESS THAN SIGNIFICANT

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
EARTH RESOURCES (SECTION 4.9) ***continued***		
	instability. Some potential methods include: a) Uncemented silty soils are prone to erosion. Cut slopes and drainage ways within native material shall be protected from direct exposure to water run off immediately following grading activities. Any cut or fill slopes and their appurtenant drainage facilities shall be designed in accordance with the El Dorado County Grading Ordinance and the Uniform Building Code guidelines. In general, soil slopes shall be no steeper than 2:1 (horizontal to vertical) unless authorized by the Geotechnical Engineer. Slope angles shall be designed to conform to the competence of the material into which they are excavated. Soil erosion and instability may be accelerated due to shearing associated with the Foothills Fault System, and/or Mormon Island Fault Zone. b) Drainage facilities shall be lined as necessary to prevent erosion of the site soils immediately following grading activities. c) During construction, trenches greater than 5 feet in depth shall be shored, sloped back at a 1:1 (horizontal to vertical) slope angle or reviewed for stability by the Geotechnical Engineer in accordance with the Occupational Safety and Health Administration regulations if personnel are to enter the excavations. d) Surface soils may be subject to erosion when excavated and exposed to weathering. Erosion control measures shall be implemented during and after construction to conform with National Pollution	

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
EARTH RESOURCES (SECTION 4.9) ***continued***		
	Discharge Elimination System, Storm Drain Standards and El Dorado County Standards. e) Rainfall shall be collected and channelled into an appropriate collection system designed to receive the runoff, minimize erosion and convey the runoff off-site. Conduits intended to convey drainage water off site shall be protected with energy dissipating devices as appropriate, and in some areas potentially lined with an impermeable, impact proof material. f) Parking facilities, roadway surfaces, and buildings all have impervious surfaces which concentrate runoff and artificially change existing drainage conditions. Collection systems shall be designed where possible to divert natural drainage away from these structures, to collect water concentrated by these surfaces and to convey water away from the site in accordance with the National Pollution Discharge Elimination System, Storm Drain Standards and El Dorado County Standards.	
4.9-8: COLLAPSIBLE AND EXPANSIVE SOIL. The thin mantle of soil over the majority the site appears to have a low potential to expand or to collapse. Proposed development within the alluvial sediments associated with Carson Creek may be subject to collapsible or expansive soil. This impact is considered to be potentially significant.	Apply mitigation measure 4.9-1 and no additional mitigation measures are required.	LESS THAN SIGNIFICANT
4.9-9: LAND SUBSIDENCE. Because of the shallow bedrock conditions on the project site, land subsidence	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
EARTH RESOURCES (SECTION 4.9) *continued*		
is highly unlikely. This impact would be considered less than significant.		
4.9-10: MINERAL RESOURCES. There is evidence of early dredging of Carson Creek and a possible lode gold mine on the project site; however, all mining evidence is very old and there is no indication of production or recent activity. The impact of the project on mineral resources would be considered less than significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.9-11: GENERAL PLAN CONSISTENCY - GEOLOGIC/SEISMIC HAZARDS AND EROSION/ SEDIMENTATION. The project site is subject to geologic and seismic hazards and sedimentation and erosion impacts. There are no provisions within the proposed Specific Plan directed at these potential impacts. The proposed project would be potentially inconsistent with the General Plan Goal 6.3 and Objectives 6.3.2 and 7.1.2 related to soil seismic and geologic hazards and erosion/sedimentation resulting in a significant impact.	Apply mitigation measures 4.9-1, 4.9-4, 4.9-5, and 4.9-7, and no further mitigation is required.	LESS THAN SIGNIFICANT
HYDROLOGY AND WATER QUALITY (SECTION 4.10)		
4.10-1: INCREASED SURFACE RUNOFF. Project development would increase runoff quantity and peak discharge from the project site resulting in potential increased water levels in Carson Creek. Although the Specific Plan proposes improvements designed to ensure that downstream flows are not substantially increased	a) Prior to the approval of the first tentative subdivision or parcel map, the project applicant shall submit and obtain approval of final drainage plans by the El Dorado County Department of Transportation. These final drainage plans shall demonstrate that future post-development stormwater discharge levels from the	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
HYDROLOGY AND WATER QUALITY (SECTION 4.10) ***continued***		
over existing levels, an increase in downstream peak flows could occur during 100-year storm events. This would be considered a potentially significant project impact.	project will remain at existing stormwater discharge levels and detention basins will be permanently maintained. The drainage plan shall be prepared by a certified Civil Engineer and shall be in conformance with the El Dorado County Drainage Manual adopted by the Board of Supervisors in March 1995. The project applicant shall form a drainage zone of benefit (ZOB) responsible for all stormwater drainage facility maintenance requirements. The drainage plan shall include, at a minimum, written text addressing existing conditions, the effects of project improvements, all appropriate calculations, a watershed map, potential increases in downstream flows, proposed onsite improvements, and drainage easements, if necessary, to accommodate flows from the site and implementation and maintenance responsibilities. The plan shall address storm drainage during construction and proposed BMPs to reduce erosion and water quality degradation. All onsite drainage facilities shall be constructed to El Dorado County Department of Transportation satisfaction. BMPs shall be implemented throughout the construction process. The following BMPs, or others deemed effective by the Department of Transportation, will be implemented as necessary and appropriate: ▸ Soil Stabilization Practices • Straw Mulching • Hydromulching • Jute Netting • Revegetation • Preservation of Existing Vegetation	

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
HYDROLOGY AND WATER QUALITY (SECTION 4.10) ***continued***		
	▸ Sediment Barriers • Straw Bale Sediment Barriers • Filter Fences • Straw Bale Drop Inlet Sediment Barriers ▸ Site Construction Practices • Winterization • Traffic Control • Dust Control ▸ Runoff Control in Slopes/Streets • Diversion Dikes • Diversion Swales • Sediment Traps b) Specific measures shall be identified in the final drainage plans to reduce stormwater discharge at the Southern Pacific Railroad bridge (Malby Crossing) at the site's southern end. These measures shall include detention basins of adequate size to reduce post-development discharge to pre-development levels. Maintenance of the detention basin and drainage facilities shall include periodic inspections (e.g., annual) to ensure facility integrity and debris removal as necessary.	
4.10-2: 100-YEAR FLOOD EVENT. The Specific Plan proposes to provide 100-year flood protection by raising proposed development areas above the 100-year flood plain. However, at present, insufficient drainage plan specificity is available to determine whether proposed residential, commercial, and other uses would be	Project development shall not occur in areas within the 100-year flood zone shown in the Final Carson Creek Regional Drainage Study. The hydrologic study outlines the 100-year flood zones associated with the project and proposed flood control measures such as detention basins. Alternatively, 100-year flood	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
HYDROLOGY AND WATER QUALITY (SECTION 4.10) *continued*		
afforded 100-year flood protection. Therefore, 100-year flood impacts would be considered potentially significant.	protection improvements, approved by the El Dorado County Department of Transportation, can be implemented to allow development in these areas.	
4.10-3: FLOODING ASSOCIATED WITH THE FAILURE OF DAMS AND LEVEES. Several flood containment ponds are planned for construction within the Carson Creek drainage. The height of the dams for these ponds is intended to be less than five feet. The banks of Carson Creek are planned to be reinforced with levees. There is a potential for flooding due to failure of dams and levees. This impact would be considered potentially significant.	Apply mitigation measure 4.10-2 and no further mitigation is required.	LESS THAN SIGNIFICANT
4.10-4: GROUNDWATER RECHARGE. Because the existing creek channels would be retained with development, groundwater recharge would not be substantially impaired by buildout of the Specific Plan. This would be considered a less-than-significant impact.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.10-5: SHORT-TERM CONSTRUCTION-RELATED WATER QUALITY IMPACTS. Water quality would be degraded during construction activities associated with buildout of the proposed Specific Plan due to the area and quantity of potential grading activities. This would be considered a significant project impact.	a) Prior to issuance of a grading permit, the developer shall obtain from the CVRB a General Construction Activity Stormwater Permit under the National Pollutant Discharge Elimination System (NPDES) and comply with all requirements of the permit to minimize pollution of stormwater discharges during construction activities. b) Prior to issuance of a grading permit, the project applicant shall submit to the El Dorado County Department of Transportation for review and approval an erosion control program which indicates that proper control of siltation, sedimentation and other pollutants	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
HYDROLOGY AND WATER QUALITY (SECTION 4.10) *continued*		
	will be implemented per NPDES permit requirements. The erosion control plan shall include BMPs as discussed in mitigation measure 4.10-1, and as follows: sediment basins, sediment traps, silt fences, hay bale dikes, gravel construction entrances, maintenance programs, and hydroseeding.	
4.10-6: LONG-TERM WATER QUALITY IMPACTS. Water quality would be degraded following site development by the introduction of urban pollutants including vehicle oil and grease, heavy metals on parking lots and driveways, fertilizers and pesticides used on site landscaping, and toxic compounds released from commercial and industrial areas. This would be considered a significant project impact.	a) Onsite detention basins shall be constructed and maintained through the construction period to receive stormwater runoff from graded areas to allow capture and settling of sediment prior to discharge to receiving waters. b) Prior to issuance of a grading permit, the project applicant shall develop a surface water pollution control plan (i.e., parking lot sweeping program and periodic storm drain cleaning) to reduce long-term surface water quality impacts. Parking lot sweeping shall occur on a weekly basis and storm drain clearing shall occur semi-annually. The plan shall also include the installation of oil, gas and grease trap separators in the project parking lot. These grease trap separators will be cleaned annually. The project applicant shall develop a financial mechanism, to be approved by the El Dorado County Department of Transportation, that ensures the long-term implementation of the program.	LESS THAN SIGNIFICANT
4.10-7: CONSISTENCY WITH RELEVANT GENERAL PLAN PROVISIONS. The Specific Plan would be required to comply with relevant El Dorado County General Plan objectives and policies related to hydrology and water quality. Although the Specific	Apply mitigation measures 4.8-2, 4.10-1, 4.10-2, 4.10-5, 4.10-6, and no further mitigation is required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
HYDROLOGY AND WATER QUALITY (SECTION 4.10) *continued*		
Plan proposes to maintain the natural drainageways, incorporate detention basins, and provide 100-year flood protection, mitigation measures are required to ensure that proposed Specific Plan provisions are successful. Therefore, the Plan would not be consistent with General Plan policies related to hydrology and water quality. This would be considered a significant impact.		
CULTURAL RESOURCES (SECTION 4.11)		
4.11-1: ARCHAEOLOGICAL SITES CC-2, CC-3, CC-4, CC-5, CC-6, AND ARCHAEOLOGICAL LINEAR FEATURES CC-LF-1, CC-LF-2, AND CC-LF-3. All of these sites are located within areas planned for construction disturbance, infrastructure or recreational improvements, or urban land use development. Implementation of project features could result directly or indirectly to the disturbance or destruction of one, or more, of these archaeological resources. These impacts are considered to be potentially significant.	a) Prior to grading and construction activities, significant cultural resources found on the project site shall be recorded or described in a professional report and submitted to the North Central Information Center at California State University at Sacramento. b) During grading and construction activities, the name and telephone number of an El Dorado County-approved, licensed archaeologist shall be available at the project site. In the event a heritage resource is encountered during grading or construction activities, the project applicant shall insure that all activities will cease in the vicinity of the recovered heritage resource until an archaeologist can examine the find in place and determine its significance. If a find is authenticated, the archaeologist shall determine proper methods of handling the resource(s) for transport and placement in an appropriate repository. Grading and construction activities may resume, after the resource is either retrieved or found to be not of consequence.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
CULTURAL RESOURCES (SECTION 4.11) *continued*		
4.11-2: ARCHAEOLOGICAL SITE CC-1 AND ARCHAEOLOGICAL ARTIFACT IF-3. CC-1 and IF-3 were determined to be not important archaeological resources. Therefore, the project's impact on these resources would be less than significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.11-3: OTHER HERITAGE RESOURCES. Areas on the project site that were subject to a general reconnaissance, cursory coverage, or not inspected during the field survey may contain heritage resources that were not detected during the field survey. In addition, heritage resources may be buried or have been concealed during the field survey. Due to this potential, the project may impact these other heritage resources; therefore, this impact is considered to be potentially significant.	Apply mitigation measure 4.11-1 and no further mitigation is required.	LESS THAN SIGNIFICANT
4.11-4: TRADITIONAL CULTURAL PROPERTIES. Although no Native American cultural properties were identified within the project site, sites of ethnic/religious significance to descendants of the County's Native American population may be present on the site. This is considered a potentially significant impact.	Apply mitigation measure 4.11-1 and no further mitigation is required.	LESS THAN SIGNIFICANT
4.11-5: GENERAL PLAN CONSISTENCY - CULTURAL RESOURCES. Cultural resources have been found on the project site and mitigation measures/conditions of approval require measures to ensure that they are salvaged, or otherwise protected. Consequently, the Specific Plan site would be developed consistent with General Plan policies and less-than-significant impacts would result.	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
SCHOOLS (SECTION 4.12)		
4.12-1: LATROBE SCHOOL DISTRICT ELEMENTARY SCHOOL. It is uncertain whether or not the Carson Creek elementary school would be available in time to accommodate project-generated students due to time requirements for processing, approving, and constructing a new school. This impact is considered potentially significant.	a) The project applicant shall pay school district developer fees in accordance with Board of Supervisors Resolution 220-91 prior to issuance of a building permit. The fees shall be the amount in effect at the time building permits are issued. b) The applicant shall ensure that proposed school facilities are in place prior to issuance of occupancy permits. Assurances can be made in various ways such as the following: 1. Creation of Mello-Roos district or other financing entity/arrangement to finance construction of the elementary school at the first possible time following approval of the school site and design from the California State Department of Education or its successors; 2. Provisions for temporary school facilities to accommodate additional students including, but not limited to, portable classrooms, lease of commercial space in the El Dorado Hills Business Park, and other temporary facilities; 3. Any combination of the aforementioned, or other arrangement, financial agreement, and/or inter-district agreement between the applicant and relevant school district(s), and with evidence of appropriate approvals filed with the El Dorado County Planning Department.	LESS THAN SIGNIFICANT
4.12-2: LATROBE SCHOOL DISTRICT MIDDLE SCHOOL. It is uncertain whether or not the Carson Creek	Apply mitigation measure 4.12-1 and no further mitigation is required.	LESS THAN SIGNIFICANT

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
SCHOOLS (SECTION 4.12) *continued*		
elementary/middle school would be available in time to accommodate project-generated students due to time requirements for processing, approving, and constructing a new school. This impact is considered potentially significant.		
4.12-3: BUCKEYE SCHOOL DISTRICT. BUSD would only accept Carson Creek students if space were available, the Latrobe School District concurred with BUSD student accommodation, and necessary agreement(s) with the Latrobe School District were in place. It is anticipated, therefore, that the proposed project would not have a substantial and adverse affect on BUSD and less-than-significant impacts would result.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.12-4: EL DORADO UNION HIGH SCHOOL DISTRICT. Sufficient capacity may not be available at EDUHSD facilities to accommodate students generated by Specific Plan buildout. Depending on the timing of Carson Creek development, EDUHSD facilities may not be available to serve project-generated students. This would be considered a potentially significant impact.	Apply mitigation measure 4.12-1(a) and no further mitigation is required.	LESS THAN SIGNIFICANT
4.12-5: GENERAL PLAN CONSISTENCY. School facilities are proposed under the Specific Plan to accommodate students generated by the project at buildout. Ultimately, the project would be consistent with General Plan policies. This would be considered a less-than-significant impact.	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
FIRE PROTECTION AND AMBULANCE SERVICES (SECTION 4.13)		
4.13-1: FIRE AND EMERGENCY MEDICAL SERVICES. The proposed project would increase the demand for fire and emergency medical services to the project site. Although the El Dorado Hills Fire Department's existing personnel and equipment would not be able to provide adequate level of service to the proposed project, the Department's funding mechanisms would ensure that sufficient funds are available to provide additional personnel, equipment, and facilities to serve the project-generated need. Therefore, the proposed Specific Plan would result in a less-than-significant impact on fire and medical services.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.13-2: GENERAL PLAN CONSISTENCY - RESPONSE TIMES. The Specific Plan area is located within the 8-minute fire and 10-minute medical emergency response standards for Community Regions. The proposed development would be consistent with General Plan Policy 5.1.2.2. Therefore, less-than-significant impacts related to consistency with County standard fire and medical emergency response times would occur.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.13-3: GENERAL PLAN CONSISTENCY - DESIGN PLANS. Due to the County's current development review process, the project applicant would be required to submit development design plans for El Dorado Hill Fire Department approval to ensure adequate fire and emergency medical access, fire hydrants, and water system designs. Therefore the Specific Plan would be consistent with General Plan Policies 5.7.1.1, 5.7.4.1, 5.7.4.2, 6.2.3.1, and 6.2.3.2. The Specific Plan would result in less-than significant impacts related to	No mitigation measures are required.	LESS THAN SIGNIFICANT

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
FIRE PROTECTION AND AMBULANCE SERVICES (SECTION 4.13) *continued*		
consistency with the County's fire and emergency medical design plan policies.		
LAW ENFORCEMENT (SECTION 4.14)		
4.14-1: LAW ENFORCEMENT SERVICES. The Sheriff's Department's existing personnel and equipment would not be able to provide adequate level of service to the proposed project. Additional personnel and equipment are funded through tax revenues allocated by the County Board of Supervisors. Due to the project's net fiscal deficit on the County, the proposed Specific Plan may not be able to provide adequate funding to meet the Department's service goal of 1 sworn officer per 1,000 residents. This would be considered a potentially significant impact on law enforcement services.	The project applicant shall ensure adequate law enforcement personnel and equipment to serve the Specific Plan area through one of the following mechanisms: a) Prior to the issuance of each building permit, the project applicant will be required to obtain a service letter from the El Dorado County Sheriff's Department identifying that law enforcement staff and equipment are available to serve the proposed land use upon occupancy and the Department has reasonably estimated that annual funding is available to provide adequate staff and equipment in the future. b) Prior to the issuance of a building permit, the project applicant shall create an assessment district to provide funding to the El Dorado County Sheriff's Department for adequate law enforcement staff and equipment upon occupancy and in the future.	LESS THAN SIGNIFICANT
4.14-2: GENERAL PLAN CONSISTENCY - RESPONSE TIMES. Existing law enforcement services could be unable to regularly respond to emergencies in the Specific Plan site within the 8-minute standard for Community Regions. The response time to the project site from existing law enforcement could, therefore, be	Apply mitigation measure 4.14-1, and no further mitigation is required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
LAW ENFORCEMENT (SECTION 4.14) *continued*		
inconsistent with General Plan Policy 5.1.2.2. This would be considered a potentially significant impact.		
SOLID WASTE DISPOSAL (SECTION 4.15)		
4.15-1: SOLID WASTE GENERATION. Buildout of the Specific Plan would result in an increase in the amount of solid waste accepted at the Union Mine Disposal Site. The amount of solid waste generated by buildout would not exceed landfill capacity. This would be considered a less-than-significant impact.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.15-2: CONSISTENCY WITH RELEVANT GENERAL PLAN PROVISIONS. The proposed Specific Plan would be required to be consistent with relevant El Dorado County General Plan objectives and policies related to solid waste. No inconsistencies with relevant General Plan solid waste provisions are anticipated. This would be considered a less-than-significant impact.	No mitigation measures are required.	LESS THAN SIGNIFICANT
PARKS, RECREATION, AND COMMUNITY SERVICES (SECTION 4.16)		
4.16-1: ACTIVE PARKS AND RECREATIONAL FACILITIES. Development of the proposed Specific Plan would result in the demand for 38 acres of active parkland based on El Dorado Hill Community Service District's (EDHCSD) requirement of 5 acres of developed or active parkland for every 1,000 population. The Specific Plan designates 31.2 acres for	The project applicant shall pay in-lieu fees for the purchase and development of approximately 7 acres of active parks and recreation facilities in addition to the 31.2 acres the applicant shall dedicate for such purposes. Actual land dedication and in-lieu fees will vary based on the final densities proposed in each phase of development.	LESS THAN SIGNIFICANT

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
PARKS, RECREATION, AND COMMUNITY SERVICES (SECTION 4.16)		
active parkland which would result in up to 7 fewer acres of active parkland than required by EDHCSD, depending on the densities proposed in each phase of development. Therefore, impacts to parkland and recreational facilities would be considered significant.		
4.16-2: OPEN SPACE. The proposed Specific Plan includes 142.8 acres of enhanced open space. Since EDHCSD has no open space designation requirement, this would be considered a less-than-significant impact.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.16-3: TRAILS AND BIKEWAYS. The proposed Specific Plan would result in a demand for trails and bikeways. Since the Specific Plan includes pedestrian and bicycle pathways, impacts would be considered less-than-significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.16-4: GENERAL PLAN CONSISTENCY - ACTIVE PARKS AND RECREATIONAL FACILITIES. General Plan policy 9.1.1.1 requires the dedication or payment of in-lieu fees toward the acquisition of 5 acres of active parkland per 1,000 population. Based on this policy, the proposed Specific Plan would require the dedication of, or in-lieu fee payment equivalent to, up to 38 acres of active parkland. Since the Specific Plan designates 31.2 acres, up to 7 less than required under this policy, it would be inconsistent with this policy. This would be considered a significant impact.	Apply mitigation measure 4.16-1 and no further mitigation is required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
PARKS, RECREATION, AND COMMUNITY SERVICES (SECTION 4.16) *continued*		
4.16-5: GENERAL PLAN CONSISTENCY - OPEN SPACE. General Plan policies 7.6.1.1 and 7.6.1.2 identify the designation of open space areas for a variety of purposes such as conserving natural resources, passive recreation, and special management areas. The proposed Specific Plan includes open space areas for similar purposes that are identified in these two policies. Impacts related to open space policies are considered less-than-significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.16-6: GENERAL PLAN CONSISTENCY - TRAILS AND BIKEWAYS. The Specific Plan includes trails and bikeways throughout the project site. Trails are proposed along linear open space areas that encompass drainage areas and along roadways. Bikeways are proposed along roadways. The proposed trails along the linear open space would be consistent with General Plan policy 9.1.3.1. Trails and bikeways along roadways could be incorporated into the County's master plans for trails and bikeways. Less-than significant impacts on trail or bikeway policies would occur from Specific Plan development.	No mitigation measures are required.	LESS THAN SIGNIFICANT
LIBRARY SERVICES (SECTION 4.17)		
4.17-1: LIBRARY SERVICE. The development of the proposed Specific Plan would result in a demand for library service. A branch library is currently proposed in the project vicinity and would be able to accommodate the population generated from the buildout of the Specific Plan. Funding for the branch	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
LIBRARY SERVICES (SECTION 4.17) *continued*		
library would be obtained through an assessment district and development under the Specific Plan would be required to pay all applicable fees. Impacts from Specific Plan buildout would be considered less-than-significant on library services.		
4.17-2: GENERAL PLAN CONSISTENCY. The proposed Specific Plan would be consistent with the General Plan because development under the Specific Plan would be required to pay all applicable library assessment fees. Impacts on library service policies would be less than significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT
WATER SERVICE (SECTION 4.18)		
4.18-1: WATER CONSUMPTION. Buildout of the proposed Specific Plan would increase water demand on the project site. Currently, insufficient water rights are available to serve the Specific Plan. Until additional water supply sources are found that can adequately serve the proposed project, this would be considered a significant impact.	Project impacts cannot be reduced to a less-than-significant level until the EID procures new water supplies that are sufficient to meet water needs of the proposed Specific Plan at buildout in conjunction with existing planned growth, or an alternative public water source is secured. Implementation of the following mitigation measures would reduce potential project impacts on water supply. The project applicant would be required to implement these measures before approval of building permits. a) In accordance with EID Policy Statement No. 22, the project applicant shall prepare a Facility Plan Report (FPR) for the proposed project. The FPR shall address the expansion of the water and sewer facilities and the	SIGNIFICANT AND UNAVOIDABLE

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
WATER SERVICE (SECTION 4.18) *continued*		
	specific fire flow requirements for all phases of the project. b) Low-volume and low-flow fixtures shall be installed to reduce water consumption. c) Efficient irrigation systems shall be installed to minimize runoff and evaporation and maximize the water that will reach plant roots. One or any combination of the following methods of increasing irrigation efficiency shall be employed: drip irrigation, soil moisture sensors, and automatic irrigation systems. Mulch shall be used extensively in all landscaped areas. Drought resistant and native vegetation shall be used in landscaped areas.	
4.18-2: WATER DISTRIBUTION. Buildout of the Specific Plan would require the extension of the existing water distribution infrastructure to the project site. The existing water distribution facilities are of adequate size and capacity to serve the Specific Plan at buildout, and the Specific Plan provides for the necessary water infrastructure onsite. This would be considered a less-than-significant impact.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.18-3: FIREFLOW DEMAND. Buildout of the Specific Plan would result in increased fireflow demand. Because insufficient water supply is currently available to serve the project site, fireflow demand for the project site would not be met until an additional water supply source is found. This would be a significant impact.	Apply mitigation measure 4.18-1, and no further mitigation is available.	SIGNIFICANT AND UNAVOIDABLE

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
WATER SERVICE (SECTION 4.18) *continued*		
4.18-4: GENERAL PLAN CONSISTENCY. The proposed Specific Plan would be required to comply with relevant General Plan goals, objectives, and policies. Because insufficient water is currently available to supply the project site at buildout, the Specific Plan would be inconsistent with Policies 5.2.1.2, 5.2.1.3, and 5.2.1.4. This would be considered a significant impact.	Apply mitigation measure 4.18-1, and no further mitigation is available.	SIGNIFICANT AND UNAVOIDABLE
WASTEWATER SERVICE (SECTION 4.19)		
4.19-1: WASTEWATER INFRASTRUCTURE. Buildout of the proposed Specific Plan would require the extension of the existing wastewater infrastructure to the project site. The Specific Plan provides for the necessary onsite improvements. EID does not anticipate any infrastructure limitations or difficulties in accommodating project wastewater flows. Therefore, this would be considered a less-than-significant impact.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.19-2: WASTEWATER CAPACITY. Buildout of the proposed Specific Plan would generate wastewater that would be treated at the El Dorado Hills Wastewater Treatment Plant (EDHWTP). The EDHWTP, with planned expansions, would be able to accommodate the additional flows generated by the project site at buildout. This would be considered a less-than-significant impact.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.19-3: GENERAL PLAN CONSISTENCY. The proposed Specific Plan would comply with all relevant General Plan goals, objectives, and policies related to	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
WASTEWATER SERVICE (SECTION 4.19) *continued*		
wastewater service. This would be considered a less-than-significant impact.		
ELECTRICITY AND NATURAL GAS (SECTION 4.20)		
4.20-1: ELECTRICITY SERVICE. The proposed Specific Plan would result in an increased demand for electricity service. This increased demand would result in less-than-significant impacts on electricity service.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.20-2: NATURAL GAS SERVICE. The proposed Specific Plan would result in an increased demand for natural gas service. This increased demand would result in less-than-significant impacts on natural gas service.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.20-3: GENERAL PLAN CONSISTENCY. The proposed Specific Plan provides options for financing infrastructure improvements to ensure adequate electricity and natural gas services in accordance with Objective 5.6.1.	No mitigation measures are required.	LESS THAN SIGNIFICANT
TELEPHONE AND CABLE TELEVISION (SECTION 4.21)		
4.21-1: TELEPHONE SERVICE. Implementation of the Specific Plan would result in an increased demand for telephone services on the project site. This increased demand would result in less-than-significant impacts on telephone service.	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
TELEPHONE AND CABLE TELEVISION (SECTION 4.21) ***continued***		
4.21-2: CABLE TELEVISION SERVICE. Development of the proposed Specific Plan would result in an increased demand for cable television services on the project site. This increased demand would result in less-than-significant impacts on cable television service.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.21-3: GENERAL PLAN CONSISTENCY. The proposed Specific Plan provides options for financing infrastructure improvements to ensure adequate telephone and cable television services in accordance with Objective 5.6.1.	No mitigation measures are required.	LESS THAN SIGNIFICANT
RISK (SECTION 4.22)		
4.22-1: WORK SHED AND BARN AREAS. A potential exists for individuals to be exposed to contaminated soils in the vicinity of the work shed and barn during construction of the project and ongoing landscaping activities. This impact is considered to be potentially significant.	If onsite contamination resulting from the storage and use of hazardous substances within the area of the work shed and barn is discovered during grading or construction, the appropriate local, state, and/or federal agencies shall be contacted. Remediation of any unauthorized release of hazardous substances shall be undertaken in accordance with all existing local, state, and federal regulations/requirements and guidelines established for the treatment of hazardous materials.	LESS THAN SIGNIFICANT
4.22-2: ONSITE STRUCTURES. Implementation of the proposed project would not expose individuals to asbestos containing materials (ACMs) because the construction demolition would be of barns constructed entirely of wood, and the existing mobile home would be relocated and not demolished. This impact is considered to be less-than-significant.	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
RISK (SECTION 4.22) *continued*		
4.22-3: WELLS, SEPTIC TANKS, AND LEACH FIELDS. Three water wells, one open pit, one septic sump, and up to two leach fields exist on the project site providing possible entryways for hazardous substances to reach soils and groundwater. However, the project will not use septic systems or wells, the possible use of hazardous substances in relation to these sources is considered to be low, the number of sites in relation to the project site is very low, and any possible substances that could have entered these sites would have undergone some level of dissipation/flushing over time. Given these considerations, this impact is considered to be less-than-significant	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.22-4: HISTORICAL MINING. Due to previous onsite mining activities, there is a potential for mining-related chemicals such as mercury to have been deposited within onsite drainages (i.e., Carson Creek and unnamed tributaries) and/or shallow groundwater. Implementation of the proposed project may result in the potential for individuals to be exposed to these chemicals during development of the site. This is considered a potentially significant impact.	Prior to the issuance of a grading permit, shallow groundwater and onsite drainage area shall be sampled to determine the potential presence of onsite contamination (mercury, etc.). If contamination is found, the appropriate regulatory agency shall be contacted. If deemed necessary by the appropriate regulatory agency, remediation shall be undertaken in accordance with all existing local, state, and federal regulations/requirements and guidelines established for the treatment of hazardous substances.	LESS THAN SIGNIFICANT
4.22-5: CONTIGUOUS INDUSTRIES. Potential onsite contamination is not anticipated to occur from the discharge of stormwater onto the project site from adjacent offsite industrial uses due to the lack of uses necessitating an NPDES permit (El Dorado Hills Business Park), or the existence of an NPDES permit	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
RISK (SECTION 4.22) *continued*		
(Wetsel-Oviatt). This would be considered a less-than-significant impact.		
4.22-6: UNDERGROUND STORAGE TANKS. Although the USTs previously located on the project site are unlikely to have released hazardous substances on the project site, a UST currently in use at the adjacent Wetsel-Oviatt site could potentially release hazardous substances. Contamination could occur onsite if hazardous substances released from the Wetsel-Oviatt UST are carried onsite through groundwater. This impact would be potentially significant.	Prior to the issuance of a grading permit, the extent (soil and/or groundwater) of potential onsite contamination resulting from the operation of offsite USTs shall be assessed. Once the extent of contamination has been determined, the appropriate regulatory agency shall be consulted in identifying the responsible party and initiating the development of a remediation program in accordance with all applicable local, state, and federal regulations/requirements and guidelines established for the treatment of hazardous substances.	LESS THAN SIGNIFICANT
4.22-7: ADJACENT RAILROAD GRADE. The use of the Southern Pacific Railroad in the transport of hazardous substances may have potentially exposed the site to contamination from offsite sources. However, there is no record that an unauthorized release of contamination has occurred along the rail line near the project site. A less-than-significant impact would occur.	No mitigation measures are required.	LESS THAN SIGNIFICANT
4.22-8: GENERAL PLAN CONSISTENCY - HAZARDOUS WASTE MANAGEMENT PLAN. The Specific Plan would not allow for the siting of hazardous waste facilities on the project site. Therefore, no inconsistencies with the El Dorado County Hazardous Waste Management Plan hazardous waste facility siting requirements are anticipated, and the Specific Plan would be consistent with the General Plan policy regarding the Hazardous	No mitigation measures are required.	LESS THAN SIGNIFICANT

TABLE 2-1 (continued)

IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
RISK (SECTION 4.22) *continued*		
Waste Management Plan. This would be considered a less-than-significant impact.		
4.22-9: GENERAL PLAN CONSISTENCY - AGENCY LIST. The project site is not included on any list of contaminated sites compiled by the El Dorado County Environmental Management Department. Therefore, the Specific Plan would be consistent with the General Plan related to agency lists. Less-than-significant impacts would occur.	No mitigation measures are required.	LESS THAN SIGNIFICANT

SECTION 3
PROJECT DESCRIPTION

3.1 PROJECT LOCATION AND SETTING

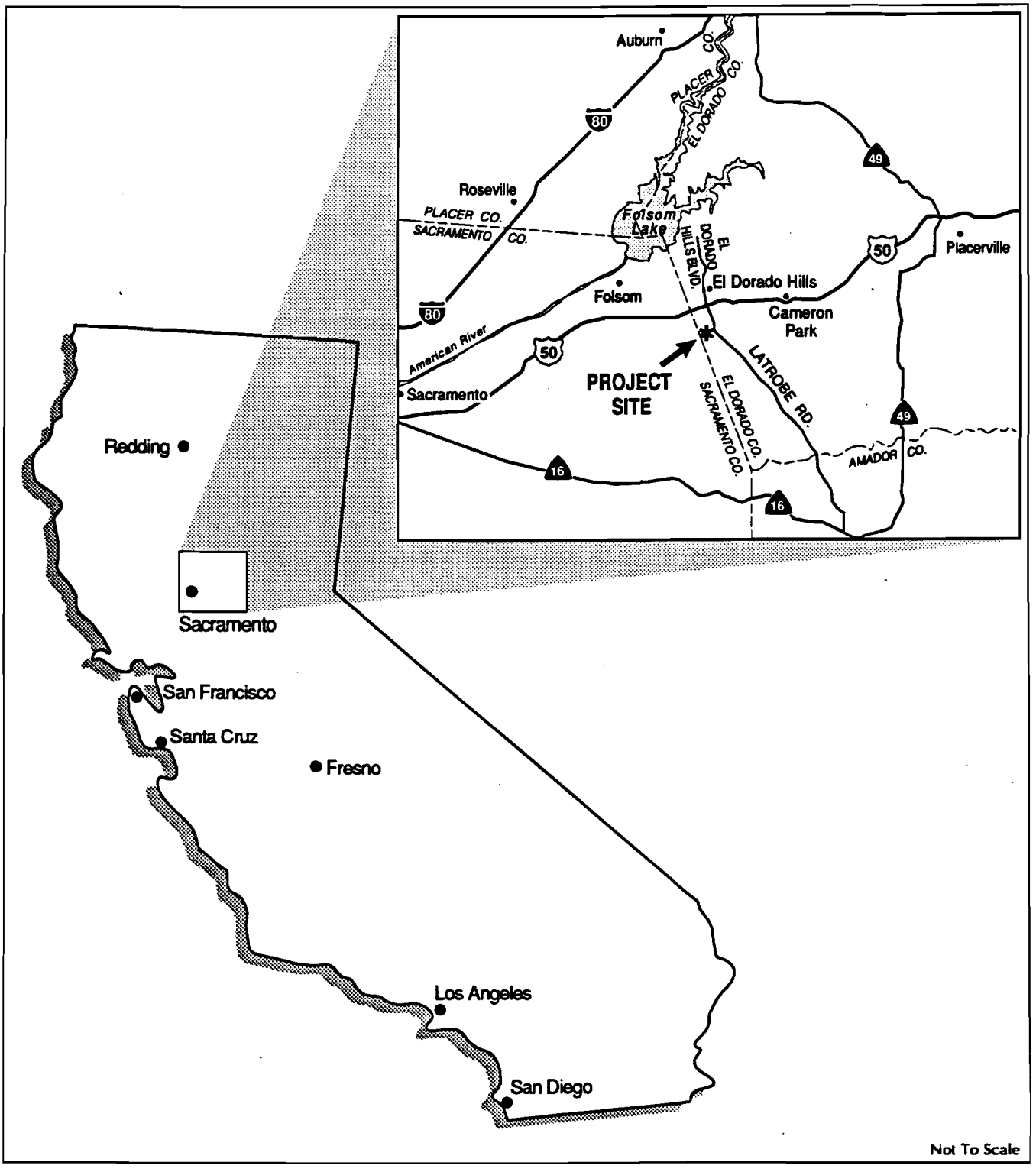
The proposed Carson Creek Specific Plan (Specific Plan) project is located in western El Dorado County, adjacent to the boundary of Sacramento County (Exhibits 3-1 and 3-2). The site is located in the Great Valley, within the foothills of the Sierra Nevada. The City of Sacramento is located approximately 25 miles to the west of the site. The municipal headquarters for El Dorado County, Placerville, is located some 18 miles east of the proposed project site.

The site is located south of U.S. Highway 50, in the unincorporated community of El Dorado Hills. The project site, and properties along the U.S. Highway 50 corridor in the vicinity of the Sacramento County/El Dorado County line, is transitioning from rural, agricultural, and undeveloped properties to residential, business park, and community uses. Other communities in the project vicinity include Cameron Park and Shingle Springs, both located east of El Dorado Hills along the U.S. Highway 50 corridor, and Latrobe to the south of the project site. The City of Folsom is located in Sacramento County, north of U.S. Highway 50, within a few miles of the project site. Sacramento County is located immediately west of the site, south of U.S. Highway 50.

Major roadways in the project area include White Rock Road adjacent to and north of the site, Latrobe Road offsite to the east, and Placerville Road offsite to the west. U.S. Highway 50 provides east/west regional access from downtown Sacramento, through El Dorado County and Lake Tahoe, and into the State of Nevada. A Southern Pacific Railroad track borders a portion of the site along the southwest. Existing surrounding land uses include residential and commercial to the north, vacant grazing lands and lumber processing to the south, a developing business park to the east, and vacant grazing land to the west.

The closest major regional drainages from the Sierra Nevada in the vicinity of the project include the South Fork of the American River, located north of the Specific Plan area, and the Cosumnes River to the south. The South Fork of the American River drains into Folsom Lake and provides a large portion of the regional water supply.

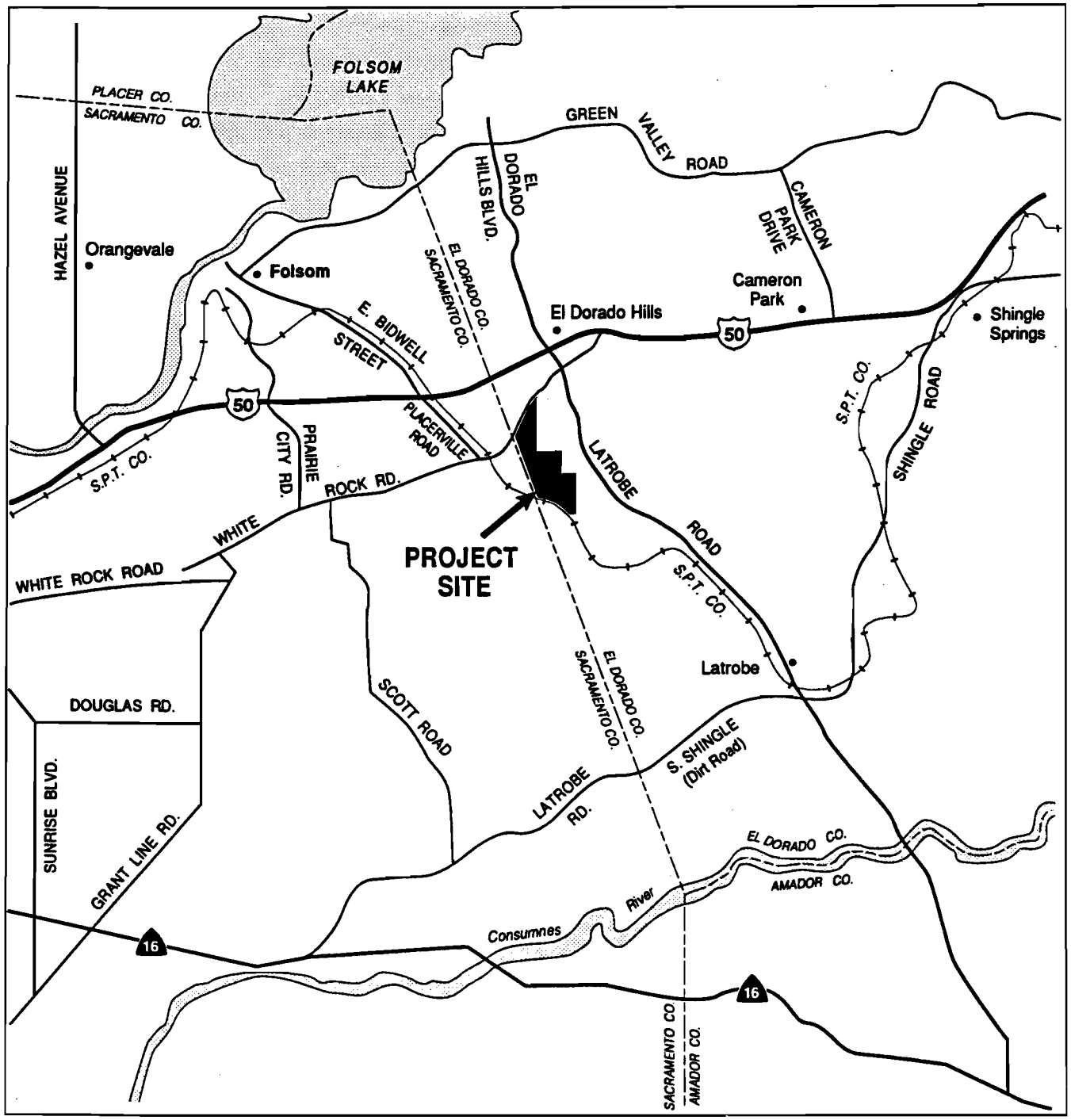
The proposed Carson Creek Specific Plan site was historically used for cattle grazing and continues in this use today. One residence, Euer Ranch, is located on the northernmost portion of the site. Vegetation on the site is largely non-native annual grasses. Some wet pasture exists in the eastern project



Regional Location Map

EXHIBIT 3-1

NORTH



Vicinity Map

EXHIBIT 3-2

CARSON CREEK SPECIFIC PLAN

area, and small areas of vernal pools, freshwater marsh, and riparian woodlands are distributed in various locations across the site (please refer to Section 4.8, Biological Resources, for further description). Approximately six oak trees are located on the site. The Specific Plan project site ranges in elevation from approximately 480 to 600 feet above sea level. The terrain is gently sloping, with slopes of 10% or less on most of the site. Carson Creek, and its tributaries, are dominant features on the site. Carson Creek drains from north to south, and is fed by tributaries draining the site from the east (Exhibit 3-3).

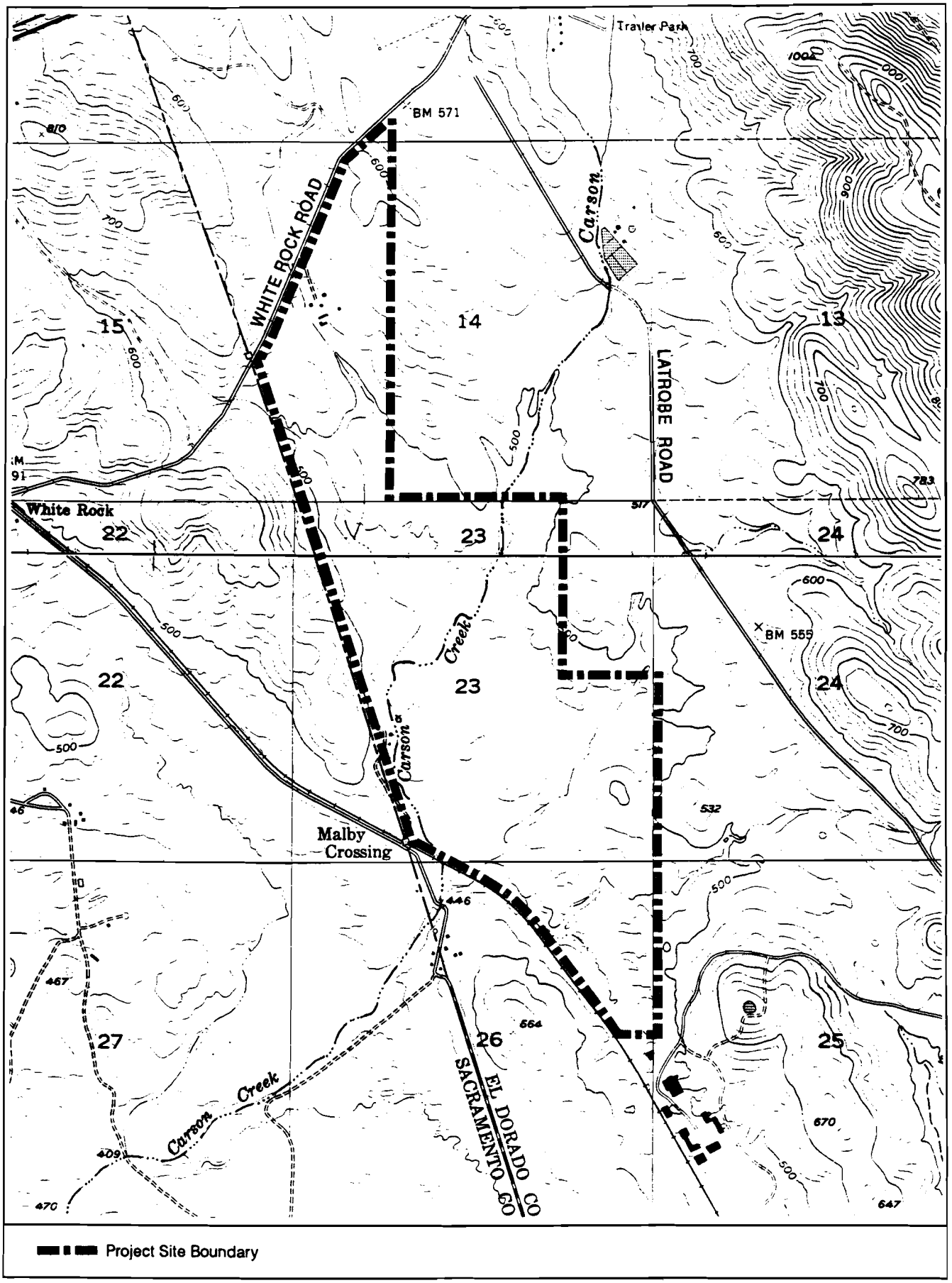
3.2 PROJECT HISTORY

In prior development submittals to El Dorado County, the Carson Creek Specific Plan project site has been previously referred to as two separate projects known as the Euer Ranch and the Carson Creek Ranch. Euer Ranch consisted of the northern project area (approximately 162 acres) and Carson Creek Ranch consisted of the southern 548 acres of the project site. The two projects were eventually combined to form the Carson Creek/Euer Ranch project. The original Carson Creek/Euer Ranch community included 2,941 dwelling units (du) with densities ranging from 3 du/acre to 25 du/acre (slightly higher densities than the current project), a network of parks and linear parkways, business park and light industrial uses, and supporting uses such as schools and neighborhood commercial centers. The Carson Creek/Euer Ranch project has since evolved into the Carson Creek Specific Plan which is the subject of this EIR.

El Dorado County recently completed a comprehensive update of its existing General Plan. The draft EIR was prepared for this General Plan and released for public review in December 1994. The final EIR for the General Plan was certified in December 1995. The County Board of Supervisors adopted the El Dorado County General Plan on January 23, 1996. The Carson Creek Specific Plan site was designated as a Planned Community in the General Plan.

3.3 SURROUNDING PROJECTS

Several development projects in the Carson Creek Specific Plan project area have been approved by El Dorado County, but are as yet unbuilt, and some projects are currently being planned. Springfield Ranch, formerly "Joerger Ranch," is an approved, unbuilt, 147-acre residential subdivision located north of White Rock Road, south of U.S. Highway 50, and immediately east of Sacramento County (Exhibit 3-4). The project was approved by El Dorado County in 1992 for a total of 283 dwelling units and 26.9 acres of open space. Springfield Ranch is located immediately north of the proposed Carson Creek Specific Plan project.



Source: Clarksville and Folsom SE, California U.S.G.S. Topographic Quadrangle Maps.

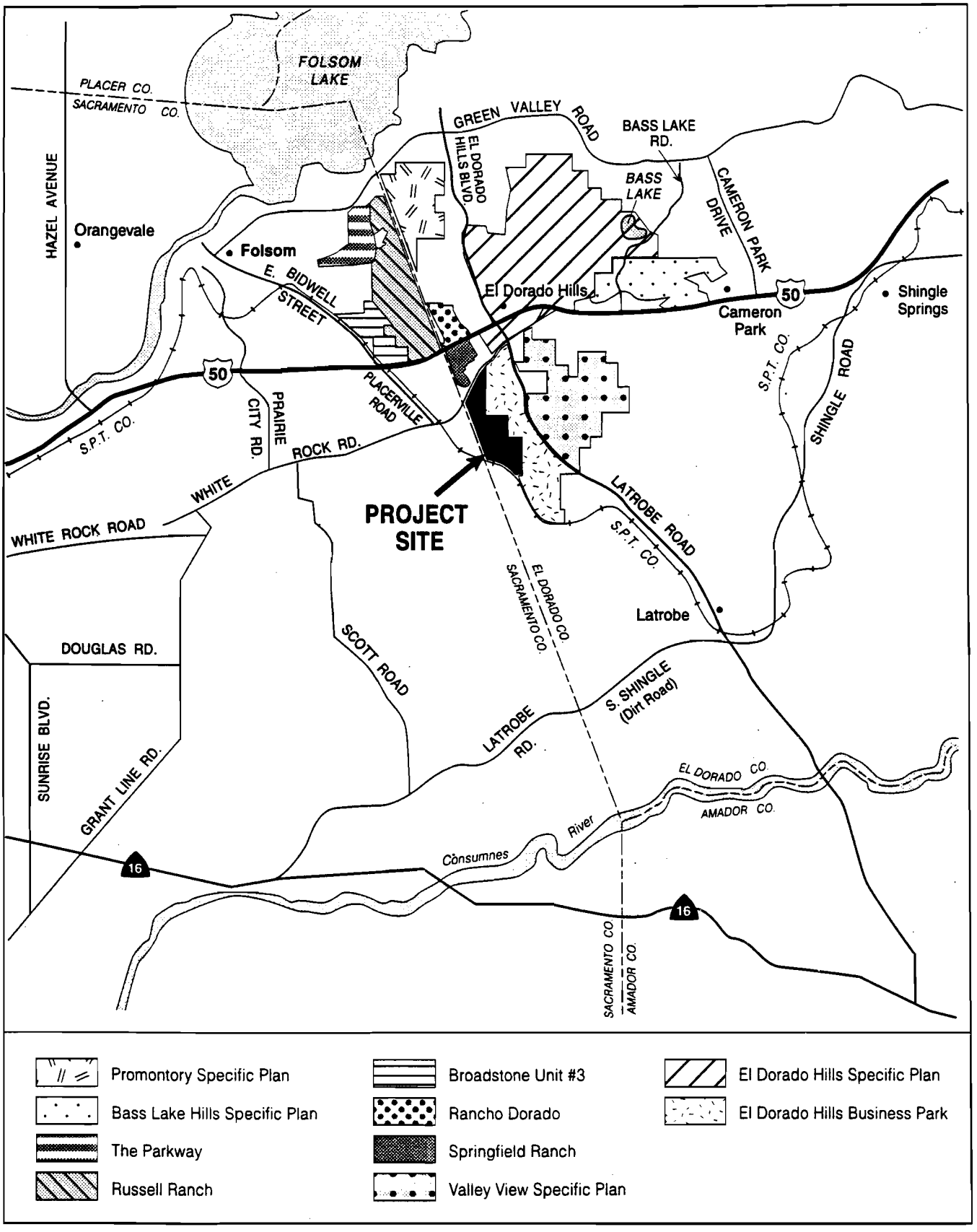
Project Site Topography

EXHIBIT 3-3

CARSON CREEK SPECIFIC PLAN

0 500 1000 2000 FEET

NORTH



Surrounding Projects

EXHIBIT 3-4

CARSON CREEK SPECIFIC PLAN

0 2 4 8 MILES NORTH

Rancho Dorado is an approved, unbuilt, 124.4-acre mostly residential subdivision located north of U.S. Highway 50, immediately east of Sacramento County (Exhibit 3-4). The project was approved by El Dorado County in 1993 for a total of 207 residential lots, along with 31.5 acres of open space, and 3.2 acres of public park uses. Rancho Dorado is located north of Springfield Ranch across U.S. Highway 50.

El Dorado Hills Business Park is an approved and developing 900-acre business park that will ultimately be the largest single employment center in western El Dorado County. It currently employs over 2,000 workers (El Dorado County 1996a). The business park is located immediately east and adjacent to the proposed Carson Creek Specific Plan area (Exhibit 3-4). The business park was approved in the early 1980's by El Dorado County and will allow for the eventual development of approximately 800 net acres of light industrial, warehousing, office, research and development, and service uses at a density of up to 10,000 square feet per acre. An Architectural Review Committee (ARC) was established through the Declaration of Protective Covenants El Dorado Hills Business Park (CC&Rs) to review all development proposals in the business park area.

The El Dorado Hills Specific Plan was approved by El Dorado County in July 1988 for the development of mixed uses on 4,086 acres located generally east of El Dorado Hills Boulevard, west of Bass Road, south of Green Valley Road, and predominantly north of U.S. Highway 50 (although some portion is located south of U.S. Highway 50 on both sides of Latrobe Road). The specific plan would allow for development of 7,346 dwelling units, and up to 260 acres of commercial, 1,020 acres of open space, 370 acres of golf course, 26 acres of park, 60 acres of school, 27 acres of village green/community center land uses, and 139 acres of major roadways. This project is located generally northeast of the proposed Carson Creek Specific Plan project (Exhibit 3-4).

El Dorado County is currently reviewing an application for a proposed Valley View development, a 2,038-acre mixed use development proposal located east of Latrobe Road and the Carson Creek Specific Plan proposal (Exhibit 3-4). Although the application and environmental review for the Valley View project has been inactive for several months, the Valley View project is considered as a potential project in this EIR. The Valley View project is proposed with primarily residential uses, with a school, open space and parks, and mixed use commercial "village centers". The land use acres and specific locations may be changing in the Valley View Specific Plan project as refinements occur through the development review process.

3.4 PROJECT OBJECTIVES

The proposed project is a specific plan providing a land use plan, guidance, and development standards for a mixed use project. Specific plans, in general, can either be regulatory in nature, adopted by ordinance, or a policy framework, adopted by resolution. The Carson Creek Specific Plan is contemplated to be a regulatory document.

1. El Dorado County's objectives for the proposed project are presented below:

    a. Create new balanced communities in areas suitable for intensive development due to the availability of adequate infrastructure and services.

    b. Provide for the visual and physical separation of new communities from existing communities.

    c. Designate lands to provide greater opportunities for El Dorado County residents to shop within the County.

    d. Ensure that safe and efficient transportation and circulation facilities are provided concurrent with new development.

    e. Provide a variety of housing opportunities by type, tenure, price, and neighborhood character to ensure the availability of decent housing.

    f. Ensure that adequate public services and utilities, including water supply, wastewater treatment and disposal, solid waste disposal and capacity, storm drainage, schools, fire protection, police protection, and ambulance service are provided concurrent with discretionary development or mitigation measures.

    g. Protect natural and man-made wetlands, vernal pools, wet meadows, and riparian areas for their importance to wildlife habitat, water purification, scenic values, and unique and sensitive plant life, and protect cultural resources.

    h. Provide adequate park and recreation facilities.

2. The applicant's objectives for the proposed project are presented below:

    a. Create a small town community with a balanced mix of residential, business, industrial, commercial, public and open space uses.

    b. Provide regulations, development standards, and guidelines for the systematic implementation and long-term maintenance of a mixed use community.

    c. Provide affordable housing among the mix of residential opportunities.

    d. Make use of the natural features and location of the Carson Creek site in the design of the new community.

3.5 PROJECT CHARACTERISTICS

The proposed project is a specific plan for the development of mixed uses on 710 acres located in western El Dorado County. A specific plan is generally a tool used to create land use plans, guidelines, and sometimes (as in this case) development standards and regulations for a project area of any size. Specific plans must be consistent with the underlying general plan of the jurisdiction in which the plan area is located: El Dorado County in the case of the proposed Carson Creek Specific Plan. Government Code §65451 identifies the contents of a specific plan which must include text and diagrams of all of the following items, as summarized from the "Specific Plans in the Golden State" (Office of Planning and Research 1989):

- distribution, location, and extent of the uses of land;
- distribution, location, and extent and intensity public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other facilities;
- standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable;
- an implementation program including regulations, programs, public works projects, and financing measures necessary to carry out items noted earlier in this list; and
- a statement of the relationship between the specific plan and the general plan.

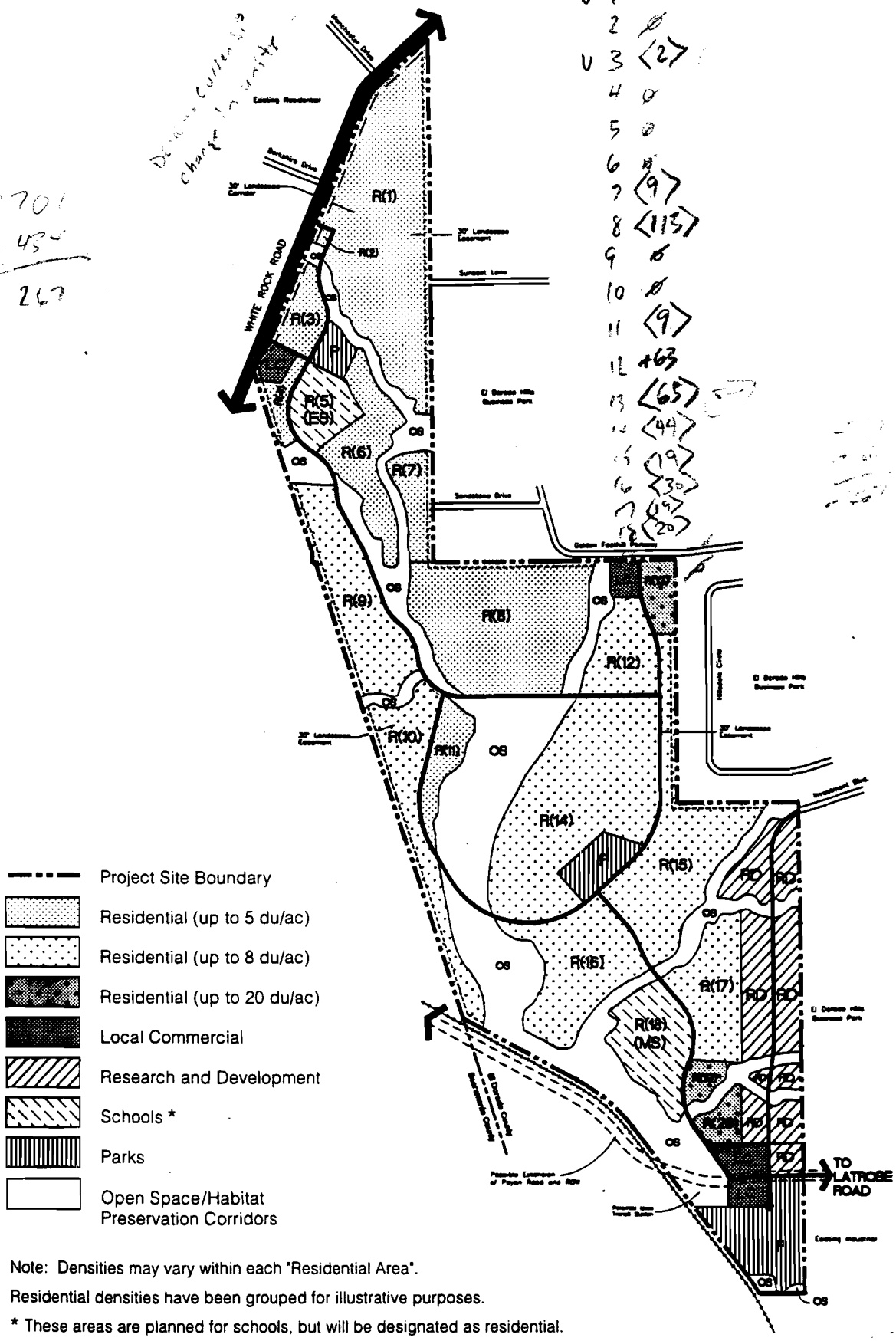
The proposed Specific Plan contains, among other sections, a development plan, development standards, implementation, and plan administration section. These sections of the Specific Plan are further described below, using the terminology presented in the Plan itself.

3.5.1 PROPOSED DEVELOPMENT PLAN

The Development Plan section of the proposed Carson Creek Specific Plan includes a land use plan diagram and description of land uses, circulation plan, open space plan, grading plan, infrastructure plan, environmental management plan, and public facilities and services component, as summarized in following text. The descriptions, below, are of project components as presented in the Specific Plan.

PROPOSED LAND USE PLAN

The Specific Plan is proposed to include: a mix of approximately 2,701 housing units with densities ranging from 3 du/acre to 20 du/acre; 13.8 acres (240,000 square feet) of commercial uses; 48.4 acres (843,000 square feet) of research and development uses; up to two schools (elementary and possibly middle); 31.2 acres of parks; and 142.8 acres of open space (Exhibit 3-5 and Table 3-1). The Specific



Note: Densities may vary within each "Residential Area".

Residential densities have been grouped for illustrative purposes.

* These areas are planned for schools, but will be designated as residential.

Source: Palisades Development, Inc., 1996.

Proposed Land Use Plan

EXHIBIT 3-5

CARSON CREEK SPECIFIC PLAN

Not To Scale

NORTH

TABLE 3-1
PROPOSED CARSON CREEK SPECIFIC PLAN LAND USES

LAND USE	ACRES	DWELLING UNITS
RESIDENTIAL		
Areas R(1) - R(20) [1]	470.4	2,701 [1]
EMPLOYMENT		
Local Commercial	13.8	
Research and Development	48.4	
Subtotal	**62.2**	
PUBLIC		
Parks	31.2	
Open Space	142.8	
Mass Transit	3.4	
Subtotal	**177.4**	
TOTAL	**710.0**	**2,701**

[1] Residential areas (R(5) and R(18) are planned for schools but will be designated as residential.
[2] Densities range from 3 du/acre to 20 du/acre; average density is 5.7 du/acre.

Source: Carson Creek Specific Plan, Palisades Development, 1996.

Plan is intended to protect unique open space, provide new jobs near a wide range of housing types, and designate park and recreational facilities.

Proposed land uses are planned to complement each other and to collectively create a traditional small town of housing, employment, commercial, business/light industrial, and public uses. A linear bike and pedestrian trail system is planned to connect community uses and creek corridors. Other recreational uses include a 4-acre local park, an 8-acre community park, and a 19.1-acre regional park for ball fields, basketball courts, and other such facilities. Development is proposed to provide compatibility between onsite uses and existing and developing adjacent uses such as the El Dorado Business Park, surrounding residential uses, and vacant agricultural land to the west in Sacramento County. In addition, an 11.3-acre elementary school is proposed for early development, with a 20-acre middle school site identified for future use; the potential school sites are designated in the Specific Plan as residential.

PROPOSED CIRCULATION PLAN

The proposed Circulation Plan describes the existing circulation features in the project vicinity and provides guidelines for implementation of the planned onsite community street network. The Circulation Plan includes a roadway layout and hierarchy, provisions for public transit facilities, and bicycle and pedestrian circulation networks to encourage a reduced reliance on automobile travel.

Major access points to outlying areas would be from White Rock Road, Investment Boulevard, and community collectors and residential streets, to offsite roadways located along the north and east of the project site. Community collectors are proposed north-south through the project site and would connect to center collector and residential streets. The Circulation Plan also reserves right-of-way for the possible extension of the existing Payen Road through the project site as a two- to four-lane arterial, connecting to Latrobe Road on the east. Bike lanes and pedestrian sidewalks would be incorporated into major collectors. Where possible, existing trees would be incorporated into landscape features such as roadways, and center landscape medians and parkways could be incorporated into arterials. No parking would be permitted along residential streets.

A 3.4-acre site is designated for a potential mass transit station and associated parking area that could be located along Payen Road; the final determination of need for the station has not been made and is dependent on decision-making and funding from a variety of agencies and jurisdictions. A proposed system of pedestrian paths provides access throughout the majority of the project area and has trail heads to creekside paths.

PROPOSED OPEN SPACE PLAN

The proposed Open Space Plan designates open space and park areas, and provides guidelines for treatment of open space and buffer areas throughout the Specific Plan. The plan encourages the use of open space for open space, wetlands, and riparian habitat protection. Thirty-foot-wide landscaped corridors are proposed along the west side of the project site to provide a transition to non-urbanized uses in Sacramento County; along the east side of the project site to provide a buffer between proposed residential uses and adjacent, offsite business park uses; and along the northern project boundary (White Rock Road) to buffer the proposed residential areas.

PROPOSED GRADING PLAN

The proposed Grading Plan encourages a minimum amount of grading to preserve natural landforms onsite, and to reduce soil erosion which can result from grading.

PROPOSED INFRASTRUCTURE

The proposed Infrastructure Plan addresses existing infrastructure systems available in the project vicinity, and identifies proposed improvements for storm drainage, water, sewer, and reclaimed water systems to serve the development consistent with the Specific Plan.

Drainage

Guidelines are included in the plan for conveying peak flows through the project site in natural or slightly modified natural swales without increasing flows above pre-project levels. Drainage would generally flow in a northeast to southwest direction, converging at the Malby crossing. Detention basins would also be constructed, and planted with vegetation capable of withstanding temporary flooding. The basins would be integrated into open spaces in Carson Creek.

Water

The northern portion of the Specific Plan area (Euer Ranch) is currently within the El Dorado Irrigation District (EID) and Assessment District No.3 (AD No. 3) service area; the southern portion of the site would need to be annexed into the EID service area. The boundaries of AD No. 3 are fixed, and a new assessment district would need to be formed to provide water service if the southern portion of the project site is annexed into the EID service area (Archuletta, pers. comm., 1996). EID is the water purveyor in the Euer Ranch portion of the proposed project and, given a number of project approvals in the general project vicinity, may require additional water supply to serve the portion of the project site in the service area and any additional properties annexed into the service district.

Proposed water distribution lines would link into existing 12-inch lines located east of the site, in the El Dorado Hills Business Park, and north into an existing 12-inch water line located in White Rock Road.

Sewer

As with water, the northern portion of the Specific Plan area (Euer Ranch) is currently within the El Dorado Irrigation District (EID), and AD No. 3 service area. The Euer Ranch portion of the proposed project would be served by AD No. 3 facilities, which include the existing El Dorado Hills Sewage Treatment Plant located off Latrobe Road south of U.S. Highway 50. The southern portion of the site is proposed for annexation into the EID service area. The boundaries of AD No. 3 are fixed, and a new assessment district would need to be formed to provide sewer service if the southern portion of the project site is annexed into the EID service area (Archuletta, pers. comm., 1996).

Proposed distribution lines would connect to existing lines in the El Dorado Hills Business Park and at Latrobe Road, and would require the addition of temporary and permanent lift stations.

Reclaimed Water

Reclaimed water is currently available after wastewater treatment provided by the El Dorado Hills Wastewater Treatment Plant, which is located south of U.S. Highway 50 along Latrobe Road. The reclaimed water is currently used by the El Dorado Hills Golf Course and is available to the El Dorado Hills Specific Plan area located north of U.S. Highway 50. A master plan for reclaimed water is currently under preparation by EID and may allow for reclaimed water in the proposed project area with possible connection/availability to the Deer Creek Wastewater Treatment Plant located approximately 5 miles east of the Specific Plan area.

PROPOSED ENVIRONMENTAL MANAGEMENT

The Environmental Management section of the Specific Plan describes the natural conditions on the project site including wetlands and other sensitive biotic resources, geologic and soils conditions, and typical vegetation and wildlife. This portion of the Specific Plan also provides information derived from a special status species inventory conducted for the site between October 1988 and May 1992. The Specific Plan states that a mitigation plan has been prepared for wetlands protection and is based on a goal of "no net loss" of wetland habitat.

PROPOSED PUBLIC FACILITIES AND SERVICES

The public facilities discussion addresses fire, police, schools, linear parkways, parks, library, natural gas, electricity, and telephone services. The plan identifies that the El Dorado Hills Fire Department would serve the site via a planned new fire station location in the El Dorado Hills Business Park, which is located east of the proposed project. The El Dorado County Sheriff's Department would provide police service. An 11.3-acre elementary (K-8 initially) school site is proposed, and a second 20-acre middle school site would also be reserved. These potential school sites would be designated residential.

The natural creek system would provide the basis for proposed linear open space, which would serve the combined purposes of recreation, pedestrian/bike circulation, detention, drainage, habitat and visual amenity. A 19.1-acre regional park is proposed in the southern project area and would include facilities such as baseball and soccer fields, and basketball and tennis courts. An 8-acre community park is proposed near the center of the project area. A 4-acre local park is planned in the northern portion of the project site adjacent to the potential elementary school site and could include picnic areas, playgrounds, and sports fields.

3.5.2 PROPOSED DEVELOPMENT STANDARDS

The Carson Creek Specific Plan Development Standards include development regulations for signage and all proposed project land uses. The standards apply to all development that would occur in the Specific Plan area and are intended to ensure overall consistency in the density, intensity, and general design of land uses. The El Dorado County Zoning Ordinance would regulate development in Carson Creek Specific Plan area in those cases where development standards have not been established. The Development Standards are divided into General Provisions, Signs, and a diversity of land uses.

GENERAL PROVISIONS

General provisions are included which apply to all development, regardless of land use type. For instance, all development must comply with the Uniform Building Code and any other relevant codes currently adopted by El Dorado County. The processes and procedures, and appropriate action in responses to violations or unforeseen conditions in the implementation of the specific plan are also described in this section.

SIGNS

Proposed sign standards would regulate identification signage for business park, industrial, and commercial land uses, noting that monument signs are preferred. Permitted and prohibited signs are identified for business park, industrial, and commercial land uses, and monument and building mounted sign provisions are described.

Permitted and prohibited sign types are described for community and neighborhood signage. Provisions are given for community and neighborhood entry, directional, temporary signs.

PERMITTED USES AND SITE DEVELOPMENT STANDARDS

Primary, accessory, and temporary permitted uses, uses permitted with a special use permit, prohibited uses (if applicable), and permitted sign guidelines are listed for each land use type allowed within the Specific Plan area. Site development standards for each land use type include requirements for minimum lot area, maximum lot coverage, minimum lot frontage, minimum setbacks, maximum height, and required parking. For active parkland, the development standards also include minimum park sizes for each category of parkland. Where applicable, performance standards have been established to ensure that development is implemented as intended by the proposed Specific Plan.

3.5.3 PROPOSED IMPLEMENTATION

The Specific Plan Implementation Plan identifies phasing on the project site, noting that the northern portion (previously referred to as "Euer Ranch") would be developed prior to the southern portion. The Implementation section discussed financing options for project development including formation of special assessment districts, creation of a Mello-Roos Community Facilities District, and establishment of a Landscaping and Lighting District. The proposed long-term maintenance of public infrastructure and provision of services is anticipated to occur through special assessment districts and private entities, depending on ownership patterns and community preferences.

3.5.4 PROPOSED PLAN ADMINISTRATION

The County's administrative authority over the implementation of the Specific Plan is described in the Plan Administration section of the Specific Plan. The procedures for amending the Specific Plan contents or modifying the locations of specific uses within the Specific Plan area are included in this section. Requirements for project submittals in the Specific Plan area are described, including environmental documentation and mitigation monitoring and reporting as required by the California Environmental Quality Act (CEQA), to clarify the County's procedures for the review of individual projects. This section of the Specific Plan also discloses the need for annexation of the entire project into necessary service districts before the portions of the Specific Plan can be developed. Procedures for appeals by decision-making bodies in the project approval process are explained in this section.

SECTION 4
ENVIRONMENTAL IMPACT ANALYSIS: ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

4.1 INTRODUCTION TO ENVIRONMENTAL ANALYSIS

Sections 4.2 through 4.22, following, contain discussions of the potential environmental impacts that would result with approval and implementation of the proposed Carson Creek Specific Plan in El Dorado County. Issues evaluated in these sections consist of the following: land use; aesthetics; population, employment and housing; traffic and circulation; air quality; noise; biological resources; earth resources; hydrology and water quality; cultural resources; schools; fire protection and ambulance/paramedic service; police protection; solid waste disposal; parks, recreation, and community services; library service; water service; wastewater service; electricity and natural gas; telephone and cable television; and risk of upset.

Appendix A contains the Notice of Preparation (NOP), the Initial Study checklist, the explanation of issues that do not require detailed evaluation in this EIR, and comments received on the NOP.

Sections 4.2 through 4.22 are each organized into the following major components:

1. Environmental Setting: This section presents the existing environmental conditions in the Project Area, in accordance with State CEQA Guidelines §15125. The discussion of environmental setting focuses on information relevant to the issue under evaluation.

2. Environmental Impacts: This section presents Thresholds of Significance and discusses potential significant effects of the proposed project on the existing environment, in accordance with State CEQA Guidelines §15126(a) and §15143. Standards of significance are presented at the beginning of each of the sections. Impacts are numbered sequentially throughout this section. Therefore, impacts in Section 4.3 are numbered 4.3-1, 4.3-2, 4.3-3, etc. Impacts identified in Section 4.4 are numbered 4.4-1, 4.4-2, and so on. The discussion of each impact includes a conclusion as to whether the effect is significant or less-than-significant.

3. Mitigation Measures: This section provides mitigation measures to reduce any significant effects of the proposed project to the extent feasible, in accordance with State CEQA Guidelines §§15002(a)(3), 15021(a)(2), and 15091(a)(1). The mitigation measures are registered numerically to the corresponding impact being reduced. For example, impact 4.3-1 would be mitigated with measure 4.3-1. If multiple mitigation measures are necessary to reduce a significant impact, measures would be numbered 4.3-1(a), 4.3-1(b), 4.3-1(c), etc. to retain the numerical relationship to impact 4.3-1.

4. Level of Significance After Mitigation: This section provides a discussion of the level of significance after mitigation. The discussion of the level of significance after mitigation describes whether mitigation measures would or would not reduce impacts to a less-than-significant level. This discussion is presented in accordance with State CEQA Guidelines §15126(b), which requires identification of significant unavoidable impacts. For effects determined to be significant and unavoidable, the County must find that specific overriding benefits outweigh those effects, if it approves the proposed project, in accordance with CEQA §21081(b) as amended in 1994.

4.2 LAND USE

4.2.1 ENVIRONMENTAL SETTING

The proposed Carson Creek Specific Plan area is located in western El Dorado County, adjacent to the boundary of Sacramento County, in the lower foothills of the Sierra Nevada. The site is approximately 25 miles east of the City of Sacramento and approximately 18 miles west of the City of Placerville, the municipal headquarters for El Dorado County. Latrobe Road is east of the site and White Rock Road is adjacent to and north of the site. Payen Road, a small one-lane paved road, is located west of the site in Sacramento County. U.S. Highway 50 is just north of the project site. Carson Creek and its tributaries drain from the north and east through the project site.

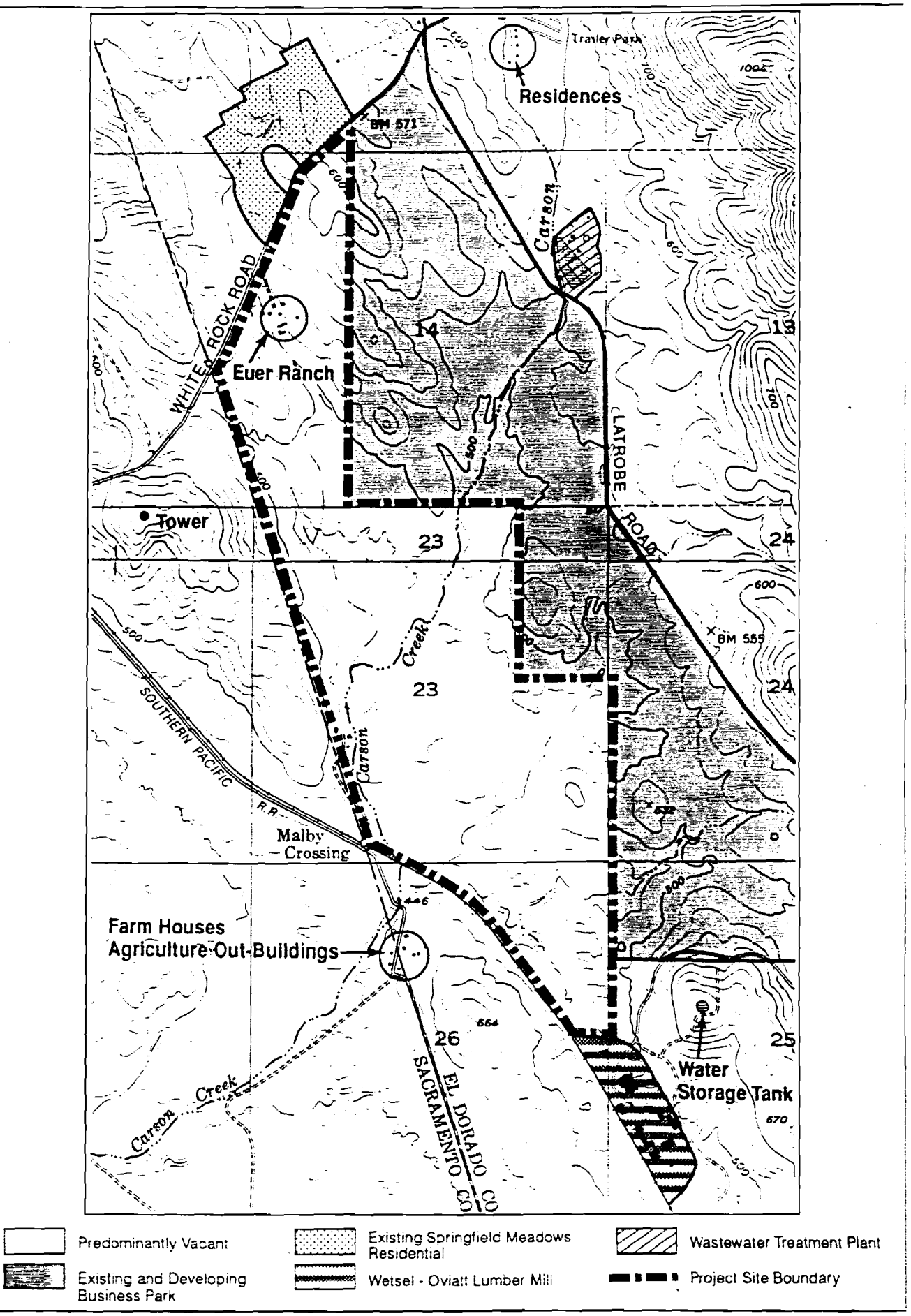
EXISTING LAND USE

Onsite Land Use

The project site is predominantly vacant, with portions of the site used for cattle grazing. The Euer Ranch, consisting of a residence, several agricultural buildings, cattle enclosures, and storage of farming vehicles, is located in the northern project area along White Rock Road. Agricultural buildings and agricultural out-buildings are located in the southwestern corner of the site, adjacent to the county line. There are no other structures or buildings on the project site.

Surrounding Land Use

The existing Springfield Meadows residential subdivision and vacant land is located across White Rock Road, between the project site and north to U.S. Highway 50 (Exhibit 4.2-1). The El Dorado Hills Business Park is located directly east and adjacent to the project site. Several individual businesses have been constructed and are operational in the business park; however, a majority of lots remain undeveloped. Vacant land exists south of the business park adjacent to the southeastern site boundary. The Wetsel-Oviatt Lumber Mill and additional vacant land is located directly south of the project site. Vacant land in Sacramento County is located west of the project site. The Southern Pacific Railroad line borders a portion of the site along the southwest. Locally, the Southern Pacific Railroad runs from Sacramento to Folsom, then along the project site to Latrobe and areas beyond. This railroad line is currently inactive in the project area.



Existing Land Use

EXHIBIT 4.2-1

0 500 1000 2000 FEET

NORTH

GENERAL PLAN LAND USE DESIGNATIONS

Onsite General Plan Designations

According to the El Dorado County General Plan (General Plan), adopted January 1996, the proposed project site is located within the El Dorado Hills Community Region. The southern site boundary is coterminous with the southern boundary of the Community Region. The land south of the site is designated as a Rural Region.

The General Plan identifies the project site as a Planned Community (Exhibit 4.2-2). The Carson Creek Specific Plan Area (referred to as "Carson Creek" in the General Plan) is one of four areas designated in the General Plan as Planned Community; the other three areas are: the Promontory (Russell Ranch), Pilot Hill Ranch, and Missouri Flat Area. The General Plan requires areas designated -PC process a specific plan to refine and create land use designations.

PC-designated areas for Planned Communities are described in the General Plan by Objective 2.1.4, which is aimed at developing balanced communities suitable for intensive development due to the availability of infrastructure and services (described further below).

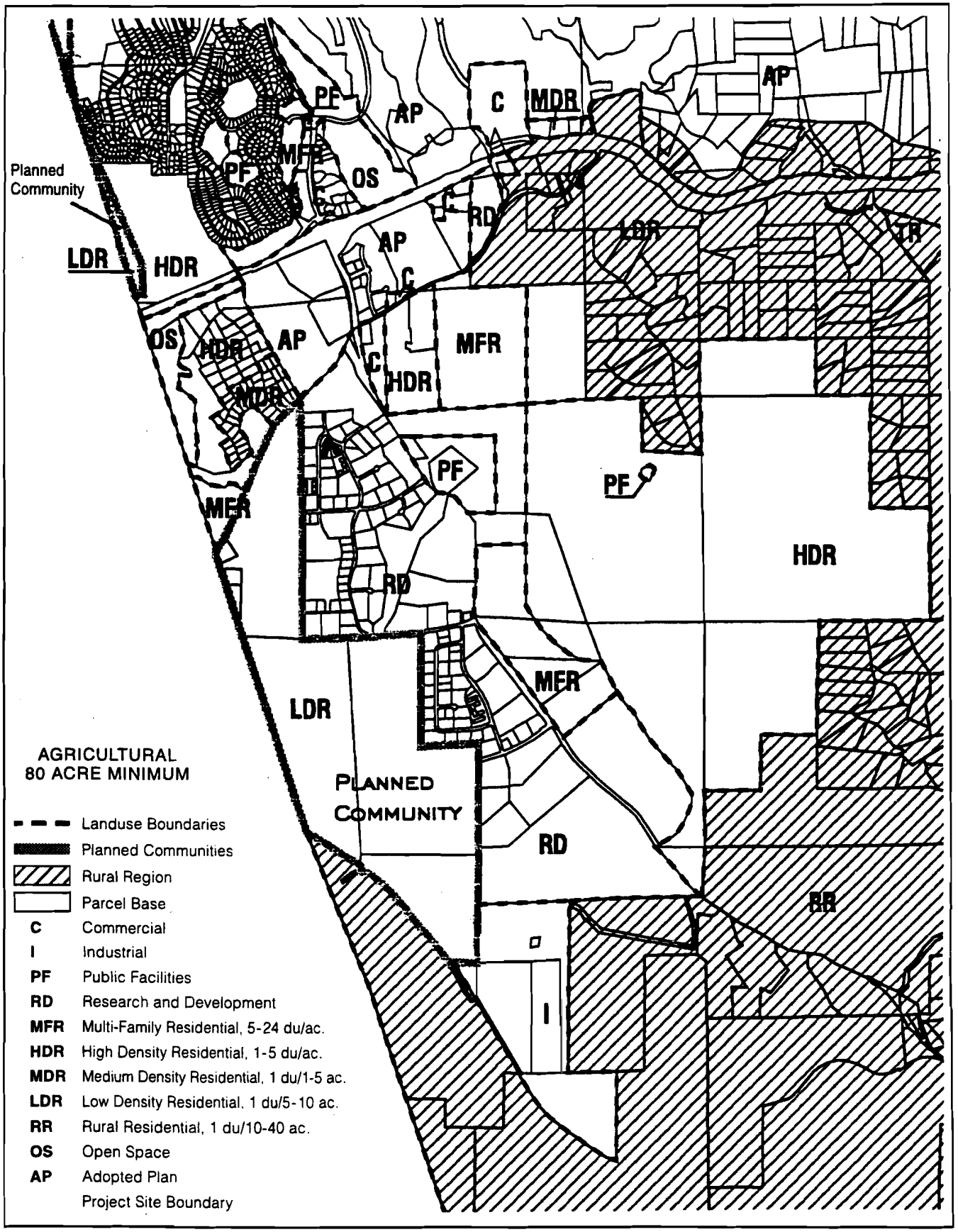
Existing Surrounding Area General Plan Designations

Land north of the project area is designated on the General Plan land use map as High Density Residential 1-5 dwelling unit per acre (du/ac) (HDR), Multi-Family Residential 5-24 du/ac (MFR), and Commercial (C) (refer to Exhibit 4.2-2). Nearly all of the property east of the project site is designated as Research & Development (RD), which corresponds to the El Dorado Hills Business Park. A small area southeast of the project site is designated as Industrial (I). The land south of the project site is designated as Rural Residential 1 du/10-40 ac (RR). Property adjacent to and west of the project site, in Sacramento County, is designated as Agricultural 80-acre minimum. A description of the uses allowed within the designated land uses are summarized below:

- HDR: Areas suitable for intensive single-family residential at densities ranging from 1-5 du/ac. Single-family attached and detached units are permitted. Designation appropriate only within Community Regions and Rural Centers.

- MFR: Areas suitable for high-density, multi-family structures (e.g., apartments, condominiums, and multiplexes) and mobile home parks at densities ranging from 5-24 du/ac. Designation appropriate only within Community Regions and Rural Centers.

- C: Allows for a full range of commercial retail, office, and service uses to serve residents, businesses, and visitors of the County. Mixed use development is allowed in Community



Source: EL Dorado County General Plan Land Use Map, January 1996.

Existing General Plan Designations

EXHIBIT 4.2-2

CARSON CREEK SPECIFIC PLAN

0 1000 2000 4000 FEET

NORTH

Regions and Rural Centers as long as commercial is the primary and dominant use. This designation is only appropriate within Community Regions and Rural Centers.

- RD: High technology, non-polluting manufacturing plants, research and development facilities, corporate/industrial office, and support service facilities in a rural or campus-like setting are allowed. RD designated lands can be located in Community Regions or Rural Centers.

- I: A full range of light and heavy industrial uses are allowed including manufacturing, processing, distribution, and storage. Incompatible, non-industrial uses are not permitted (except support services). Lands with such designation are to be designated within, or in close proximity to, Community Regions or Rural Centers. Industrial lands can be allowed in Rural Regions but are constrained to uses which support on-site agriculture, timber resource production, mineral extraction, or other resource use.

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

On January 23, 1996, the El Dorado County Board of Supervisors adopted the El Dorado County General Plan, a comprehensive 20-year plan that provides long-range direction and policy for land use within unincorporated El Dorado County. The General Plan consists of two volumes, Volume I (Goals, Objectives, and Policies) and Volume II (Background Information), and a land use map.

General Plan Strategies and Concepts

Volume I of the General Plan provides eight Plan Strategies to accomplish the visions and goal of the General Plan and to carry forward the plan's principle purposes. The Plan Strategies relevant to the proposed project include the following:

1. Concentrate growth in the westernmost portion of the County in proximity to the [U.S.] Highway 50 corridor.

3. Encourage growth to reflect the character and scale of the community in which it occurs and recognize that planned developments are an effective planning tool to maximize community identity and minimize impact on the surrounding area.

4. Require new growth to fully fund its on-site services and apportioned share of off-site services.

6. Provide sufficient land densities and land use designations throughout the County to accommodate the projected growth for all categories of development.

7. Support the ability of the private sector to create and provide housing for all residents regardless of income, race, sex, age, religion, or any other arbitrary factor to accommodate the County's projected share of the regional housing needs.

8. Recognize economic development as an integral part of the development of existing communities and new communities by allowing for a diverse mix of land use types which would facilitate economic growth and viability.

The General Plan includes Plan Concepts underlying growth areas designated by the General Plan. Among the Plan Concepts, the following apply to the proposed Carson Creek Specific Plan project:

Flexible boundaries shall be provided identifying Community Regions, Rural Centers, and Rural Regions on the General Plan Land Use Map for clear distinction between:

A. Community Regions where growth will be directed and facilitated;

B. Rural Centers where growth and commercial activities will be directed to serve the larger Rural Regions; and

C. Rural Regions where resource based activities are located and will be enhanced while accommodating reasonable growth.

Higher levels of infrastructure and public services of all types shall be provided within Community Regions to minimize the demands on services in Rural Regions. The Capital Improvement Plan for the County and all special districts will prioritize improvements.

General Plan Goals, Objectives, and Policies

The General Plan is comprised of elements which address a broad and evolving range of issues. Each element of the plan identifies and describes goals, objectives, and policies which provide direction for decision making and formulation of public policy. The General Plan contains nine elements, including seven elements required by state law, which guide development within the County.

Goals, objectives, and policies that are relevant to the proposed project are provided in the following elements: Land Use; Circulation; Housing; Public Services and Utilities; Public Health and Safety; Conservation and Open Space; and Parks and Recreation. The Land Use goals, objectives, and policies are discussed below while the other relevant goals, objectives, and policies are discussed within the appropriate sections of this EIR (e.g., relevant visual policies from the Land Use Element are evaluated in Section 4.3 of this EIR, and relevant noise policies from the Public Health and Safety Element are discussed in Section 4.7 of this EIR).

Land Use Element

The following General Plan policies are relevant to the proposed project:

Goal 2.1: Land Use - Protection and conservation of existing communities and rural centers; creation of new sustainable communities; curtailment of urban/suburban sprawl; location and intensity of future development consistent with the availability of adequate infrastructure; and mixed and balanced uses that promote use of alternate transportation systems.

Objective 2.1.1: Community Regions - Purpose: The urban limit line establishes a line on the General Plan land use maps demarcating where the urban and suburban land uses will be developed. The Community Region boundaries as depicted on the General Plan land use map shall be the established urban limit line.

Provide opportunities that allow for continued population growth and economic expansion while protecting and preserving the character and extent of existing rural centers and urban communities, emphasizing both the natural setting and built design elements which contribute to the quality of life and economic health of the County.

Policy 2.1.1.2: Establish Community Regions to define those areas which are appropriate for the highest intensity of self-sustaining compact urban-type development or suburban type development within the County based on the municipal spheres of influence, availability of infrastructure, public services, major transportation corridors and travel patterns, the location of major topographic patterns and features, and the ability to provide and maintain appropriate transitions at Community Region boundaries. These boundaries shall be shown on the General Plan Land Use Map.

Policy 2.1.1.3: Mixed use developments which combine commercial, research and development, and residential uses on a single parcel are permissible and encouraged within the Community Regions provided the commercial use is the primary and dominant use of the land. Within Community Regions, the mixed uses may occur vertically. In mixed use projects, the maximum residential density shall be 10 dwelling units per acre within Community Regions.

Objective 2.1.4: Planned Communities - Creation and development of balanced communities in areas identified as suitable for intensive development due to the availability of adequate infrastructure and services.

Policy 2.1.4.1: Planned communities within the County are identified as Planned Communities (-PC): "The Promontory (Russell Ranch)"; "Carson Creek"; "Pilot Hill Ranch"; and "Missouri Flat Area."

Policy 2.1.4.2: Planned Communities should be designed with an emphasis on alternative modes of transportation to minimize the use of personal motorized vehicles to the maximum extent possible. Pedestrian/bicycle pathways shall be encouraged. These pathways should be separated from roadways whenever possible to allow for greater safety for the pedestrian and bicyclist and to allow vehicular traffic to move more freely.

Policy 2.1.4.3: All planned communities are designated with the Planned Community (-PC) overlay designation and, except for the Missouri Flat Area Planned Community, which is governed by Policy 2.1.4.8, shall require the processing of a specific plan pursuant to Government Code Sections 65450-65457, unless otherwise specified herein. The specific designation of such lands, as well as permissible densities and intensities of use, shall be consistent with the applicable Land Use Summary Table. For these lands, the -PC overlay designation shall function as the General Plan designation

governing the types and densities and intensities of allowed land uses and with which implementing planning actions such as adoption of specific plans and zoning must be consistent. Although these lands also have underlying land use designations (e.g., Low Density Residential), those designations will not control the allowed types and densities and intensities of land uses unless the -PC overlay designation and Land Use Summary Table is removed through a General Plan amendment pursuant to Policy 2.1.4.6. Thus, for example, although the underlying designation (e.g., LDR) may seem to permit only residential uses at relatively low densities, the -PC overlay designation will allow the County to approve, without General Plan amendments, specific plans authorizing some residential densities and land use intensities greater than that permissible pursuant to the underlying designations. (See [Table 4.2-1] for densities allowed in the specific Planned Community.)

Policy 2.1.4.4: Specific Plans for planned communities include negotiable design features for public benefit. Examples of these features are:

A. Separate bicycle and pedestrian paths that connect residential areas to employment, retail, school, community facilities and recreation areas;
B. On-street parking;
C. Establish reduced mandatory building setbacks that encourage parking lots to the rear of commercial buildings or within the interior;
D. Street landscaping within medians and along sidewalks;
E. Bus and commuter transit stops;
F. Integration of open space amenities to protect environmentally sensitive features;
G. Common parking structures within business areas;
H. Pedestrian circulation from one retail site to another;
I. Pocket parks and plazas and parklands as recommended in the Parks and Recreation Element;
J. Bicycle parking and/or storage facilities conveniently located;
K. Satellite job center sites for multiple employers/businesses;
L. Neighborhood Service Centers;
M. Outdoor art, statues, etc.;
N. Town/community centers distinguished with major public buildings, parks/plazas or other focal points;
O. A financial element that includes payment of all capital costs for infrastructure and ongoing operations and maintenance;
P. A distribution of housing units to meet the needs of all income levels as specified in Policies 4.1.1.1 and 4.1.1.2 of the Housing Element;
Q. Provide for Neighborhood Service opportunities with residential land uses in accordance with Policy 2.2.5.8;
R. Maintain significant historic and prehistoric sites, steep slope areas, and stream corridors in continuous and permanently dedicated open space;
S. Provide on-site employee services such as restaurants, banks, etc.;
T. A common continuous landscape program that includes planting and design guidelines consistent with the setting, including street landscaping that creates separate walkways and bicycle routes, where appropriate; and
U. Shielded, low intensity and efficient lighting.

TABLE 4.2-1
CARSON CREEK PLANNED COMMUNITY LAND USE SUMMARY TABLE
Land Use Densities and Residential Population Ranges

Land Use	Acres	Units	Density (du/ac)	Persons per housing unit	Total persons	Persons per acre
Residential						
	5.0	12	2.4	2.8	33.6	6.7
	77.7	233	3.0	2.8	652.4	8.4
	41.5	159	3.8	2.8	445.2	10.6
	38.4	154	4.0	2.8	431.2	11.2
	130.7	653	5.0	2.3	1,501.9	11.5
	55.6	334	6.0	2.3	768.2	13.8
	17.5	123	7.0	2.3	282.9	16.1
	8.7	70	8.0	2.3	161.0	18.4
	65.1	651	10.0	2.3	1,497.3	23.0
	9.0	150	16.7	2.3	345.0	38.4
	10.8	202	18.7	2.3	464.6	43.0
	10.0	200	20.0	2.3	460.0	46.0
Subtotal	470.2	2,941	6.25 avg.	2.39 avg.	7,043.0	15.0 avg.
Commercial						
General Retail	11.0		10.0[2]	2.8		28.0
Local Convenience/Office	5.8		10.0[2]	2.8		28.0
Professional Office	65.1					
Subtotal	81.9					
Industrial	9.5					
Public Use						
Parks	33.0					
Open Space	85.4					
Public Schools	30.0					
Subtotal	148.4					
TOTAL	710.0	2,941			7,043.0	

[1] 1990 U.S. Census
[2] Maximum of 10 units per acre permitted (Policy 2.2.1.3)

Source: El Dorado County 1996

Policy 2.1.4.5: To achieve a desired mix of uses within a planned community and emphasize the goal of improving the County's employment base, the following target acreage percentages shall be incorporated into the specific plan:

Residential	40-50%
Commercial/Office	1-15%
Research & Development/Industrial	0-15%
Public Facilities/Parks/Open Space	20+%

The actual mixture of uses will be refined and defined through the Specific Plan process. Where the mix of uses within a proposed planned community is substantially consistent with these target percentages, a specific plan for such a community may be approved without a General Plan amendment.

Policy 2.1.4.6: In areas designated Planned Community overlay there will be no further land division until such time as the County adopts a specific plan. Development pursuant to the underlying land use designation shall not occur unless there is a General Plan amendment to remove the Planned Community designation.

Policy 2.1.4.9: Parcels within a Planned Community shall not be subdivided below 40 acres until such time as a specific plan, or other planning document specified herein, is adopted by the County.

Objective 2.2.2: Overlay Land Use Designations - Establishment of overlay designations to provide additional direction for the development of land where circumstances apply generally to the lands regardless of the underlying land use designations.

Policy 2.2.2.6: The purpose of the *Planned Community (-PC)* overlay designation is to supersede underlying land use designations, as set forth in Policy 2.1.4.3, and to:

A. Identify lands suitable for new communities that require a specific plan in accordance with Government Code Sections 65450-65457 and common planning and funding for infrastructure and life cycle costs.

B. Allow use of modern planning and development techniques, effect more efficient utilization of land, and to allow flexibility of development.

C. Aid in the reduction of development costs and provide for a combination of different land uses which complement each other but which may not in all aspects conform to the existing zoning regulations;

D. Encourage a more efficient use of public and/or public services;

E. Place the primary emphasis on clustering intensive land uses to minimize impact on various natural and man-made resources, minimize public health concerns, minimize aesthetic concerns, and provide for the creation of open space lands and other community land uses.

F. Provide for public benefit.

EXISTING ZONING DESIGNATIONS

Onsite Zoning

Zoning for the project site is reflected in the El Dorado Hills Salmon Falls Area Plan (June 8, 1993). The existing zoning would be modified by the adoption of the Carson Creek Specific Plan. Currently a majority of the site is zoned Exclusive Agriculture (AE) (Exhibit 4.2-3). A smaller portion of the site, located in the north, is designated as Research and Development (RD).

Existing Surrounding Area Zoning

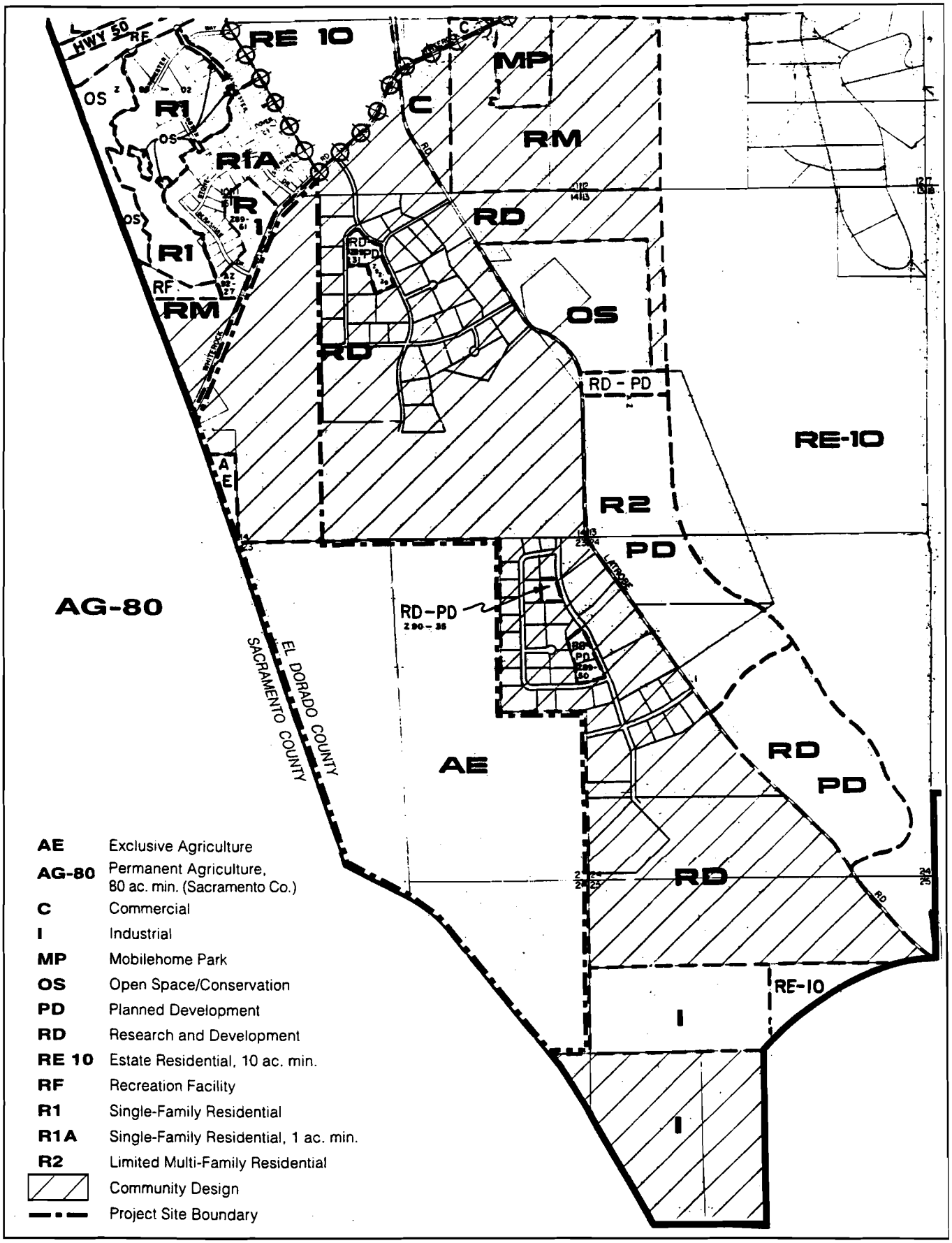
Properties bordering the Specific Plan site to the north are designated as Multi-family Residential (RM), Single Family Residential (R1), and Single Family Residential 1 acre minimum (R1A). Much of the land east of the site, underlying the El Dorado Hills Business Park, is zoned Research & Development (RD). A small portion of land is zoned Industrial (I) along the southeast and the south of the project site.

Adjacent Sacramento County property to the west of the Specific Plan is zoned Permanent Agriculture 80 acre minimum (AG-80) (Manoff, pers. comm., 1996).

EXISTING SERVICE DISTRICTS

Many public services and utilities in El Dorado County are provided through service districts. These districts are, in general, quasi-governmental agencies established to administer specific public services and utilities. The boundaries of service districts are reviewed by the El Dorado Local Agency Formation Commission (LAFCO) which is an advisory agency to the El Dorado County Board of Supervisors. Service districts receive certain types of revenues which are then directed to the provision of identified public services and utilities.

The northern portion of the proposed project site (Euer Ranch) is located within the boundaries of the El Dorado Irrigation District (EID) and Assessment District No. 3 (AD No. 3), which provide water and sewer service, and the El Dorado Hills County Water Fire District, which provides fire service. It is also located within County Service Area No. 9, Zone 17, which provides ambulance service. The remaining southern portion of the site is located outside these districts.



Source: EL Dorado Hills, Salmon Falls Area Plan Zoning Map, June 8, 1993.

Existing Zoning

EXHIBIT 4.2-3

CARSON CREEK SPECIFIC PLAN

0 500 1000 2000 FEET NORTH

AGRICULTURAL PRESERVE (WILLIAMSON ACT CONTRACT LANDS)

The California Land Conservation Act of 1965, or Williamson Act, was established to protect agricultural land from urban development. Through the Williamson Act, property owners can enter into contracts with cities or counties to retain their property in open space uses in exchange for lower tax assessments which are based on the use value of the land (California Department of Conservation March 1992). These properties become agricultural preserves. Each Williamson Act contract spans a 10-year period after which the contract is automatically renewed unless a "Notice of Nonrenewal" is filed with the county in which the property is located. If such notice is filed, then the Williamson Act contract expires after the 10-year notification period elapses, or financial penalties are assessed to the property owner if the property is developed prior to expiration.

Previous owners of the Carson Creek Specific Plan property (the southern project areas) applied to El Dorado County for a Williamson Act contract, which the County granted. The land was used primarily for grazing under the agricultural preserve status. On November 1, 1990, a Notice of Nonrenewal was filed to remove the site from agricultural preserve status. The Williamson Act land will automatically expire from contract status "... nine years from and after February 28, 1991 ..." (Mosher 1990). After that date, the Williamson Act contract will no longer apply to the site.

4.2.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Significant impact related to land use were determined from criteria stated in Appendix G of the State CEQA Guidelines. These guidelines state that a project will normally have a significant land use impact if it will:

- Conflict with adopted environmental plans and goals of the community in which it is located.

Significant impacts would also be anticipated if changes in land use characteristics were of such a degree that direct conflicts between adjacent uses became inevitable.

IMPACTS

IMPACT 4.2-1: LAND USE. THE PROPOSED PROJECT WOULD CONVERT THE SITE FROM PREDOMINANTLY OPEN SPACE AND VACANT USES TO URBAN DEVELOPMENT. SINCE CATTLE GRAZING IS A TEMPORARY USE, AND RELOCATION OF EXISTING RESIDENTIAL IS

NOT REQUIRED, THE CONVERSION OF LAND IS CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

Implementation of land uses planned under the Specific Plan would result in the conversion of predominantly vacant and cattle grazing land to urban development uses. Portions of the project site are leased by the current property owner for cattle grazing. This lease can be terminated at the owner's discretion. Because cattle grazing is a function of a lease, it is considered a temporary use that could be moved to another site without substantial environmental consequences.

The existing Euer Ranch residence would remain on approximately 6 acres in the northern project area with development of Specific Plan uses. Because cattle grazing is a temporary use, and since relocation of existing residences would not occur with the proposed project, conversion of existing land uses to urban uses is not considered significant.

IMPACT 4.2-2: LAND USE COMPATIBILITY. PROJECT DEVELOPMENT ALONG THE NORTHERN PROJECT BOUNDARY WOULD BE RESIDENTIAL, AS ARE EXISTING USES TO THE NORTH AND ACROSS WHITE ROCK ROAD. THE PROJECT WOULD BE LOCATED BEHIND A 30-FOOT LANDSCAPED GREENBELT. DEVELOPMENT ALONG THE EAST WOULD BE ACROSS FROM SIMILAR LAND USES, OR BUFFERED WITH SETBACKS AND A 30-FOOT LANDSCAPE AREA. DEVELOPMENT IN SOUTHERN AREAS WOULD BE SIMILAR TO USES OFFSITE, AND SOUTH. GIVEN THESE CONSIDERATIONS, LESS-THAN-SIGNIFICANT LAND USE COMPATIBILITY IMPACTS WOULD OCCUR WITH DEVELOPMENT OF THE SPECIFIC PLAN.

Implementation of the Carson Creek Specific Plan would result in new development along the western boundary of El Dorado County. The project would result in new land uses adjacent to existing development to the east (the El Dorado Hills Business Park), across White Rock Road to the north (Springfield Meadows residential), and near an existing lumber mill to the south (Wetsel-Oviatt). The potential land use compatibility issues associated with the Carson Creek Specific Plan in relation to existing development is described below.

Land Use Compatibility - Northern Project Boundary

The Carson Creek Specific Plan proposes residential uses at up to 5 du/ac along White Rock Road in proximity to the existing Springfield Meadows residences. The Euer Ranch (approximately 6 acres) along the northern boundary would remain with the proposed project. The Specific Plan homes are planned as detached units that allow front or rear yard garages. These units are encouraged to have porches to provide a transition between White Rock Road and the homes. A 30-foot "... heavily-landscaped greenbelt ..." is also proposed along the northern boundary of the Specific Plan in the vicinity of Springfield Meadows.

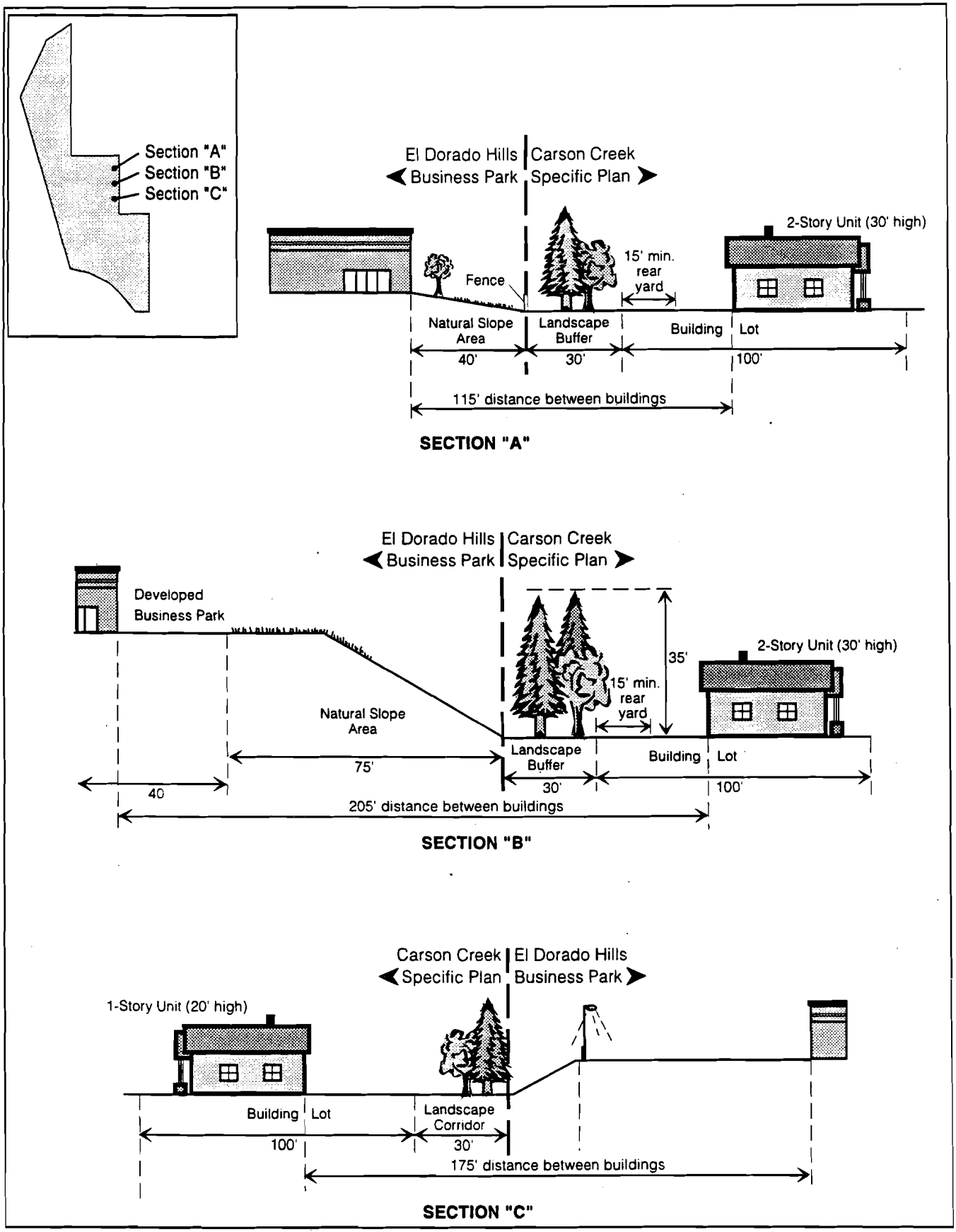
The proposed project would include single-family homes across from existing single-family uses. The Springfield Meadows lots are larger and more "rural" in character than those planned in Carson Creek in that they were individually developed and not based on similar dwelling unit design plans. A 30-foot landscape buffer planned along Carson Creek would screen, and allow a transition area, between Carson Creek and Springfield Meadows. Since existing and planned land uses along the northern border of Carson Creek would be similar, and a landscape buffer would be provided between the two areas, less-than-significant land use compatibility issues would occur in the northern project area.

Land Use Compatibility - Eastern Project Boundary

The types of land uses that would develop with the Specific Plan along the eastern border include: single family attached and detached (residential units R(1) and R(7)) along the north; single-family attached, detached, and multiple family (R(8), R(13), and R(15)) and commercial in the central portion; and research and development and park along the south. The portion of the business park located adjacent to the planned single-family and duplex units (R(1) and R(7)) is undeveloped. Without some transition or buffer area, future business park uses could be incompatible with residential uses if they include delivery areas where truck and automobile movement could generate noise and dust. Incompatibilities could also result with business park operational features such as night lighting, or use of loudspeakers for paging.

Residential uses along the north are proposed to be a maximum of 30-feet in height, or two stories. Minimum lot sizes would range from 5,500 square feet (sq ft) for single family detached, to 6,000 sq ft for duplex units, and up to 7,500 sq ft for corner lots. A minimum 15-foot rear yard setback would be required for single-family houses. Rear yard setbacks are not specified for duplex units. Along the east side of Carson Creek in the middle portion (in residential units R(8), R(13), and R(15)), a variety of single- and multi-family housing is permitted. Rear yard setbacks are not specified for small-lot, single-family detached homes to allow flexibility in garage location. Garages are encouraged and could be built to the rear or side of small-lot residential, and could be as close as 3 feet from the rear property line with homes located another 10 feet beyond (total 13-foot rear setback area). The R(13) residential area would allow for a variety of high density housing.

A heavily-landscaped 30-foot greenbelt is proposed in the Specific Plan along the rear yards of residentially-designated areas adjacent to the eastern perimeter of the site. The greenbelt would provide a buffer between the site and the existing adjacent El Dorado Hills Business Park. The greenbelt is intended to be located between all planned residential areas that are adjacent to existing or planned business park uses (Robertson, pers. comm., 1995). Subsequent to submittal of the Specific Plan to El Dorado County, the project applicant provided a letter and conceptual description/diagram of the intended



Source: Palisades Development, Inc. 1995.

Proposed Project/Business Park Interface

EXHIBIT 4.2-4

0 15 30 60 FEET NORTH

landscape separation along the eastern project boundary in the middle portion of the project area (McDougall 1995) (Exhibit 4.2-4). In this portion of the project area, the Carson Creek site would be at a somewhat lower elevation than the business park. As indicated in the letter, a 30-foot landscape buffer [inadvertently called out as 35 feet in the letter] and setback would be created between the business park and residential uses. As shown, a minimum of 25 feet of natural slope area would exist along the business park side of the property. A 6-foot fence would be located on the Carson Creek boundary. Within the fence line, 30 feet of landscape buffer would be provided before the rear yard setback would begin. The proposed distance between business park structures and inclusion of a 30-foot landscape buffer would sufficiently prevent noise, dust, and night lighting effects on proposed residential uses, resulting in less-than-significant impacts.

In the southernmost project area along the east, research and development uses are proposed adjacent to business park uses. These are similar land uses, and incompatibility impacts are not expected.

Land Use Compatibility - Southern Project Boundary

The Carson Creek Specific Plan would allow development of park and open space uses along the southernmost project boundary. The proposed park uses would be developed in proximity to the existing Wetsel-Oviatt lumber mill, which is located a few hundred feet south of the project boundary. Proposed park and open space land uses are not anticipated to affect existing offsite land uses to the south. Therefore, less-than-significant land use compatibility impacts would result along the southern project boundary.

> IMPACT 4.2-3: GENERAL PLAN CONSISTENCY. THE PROPOSED PROJECT WOULD BE CONSISTENT WITH GENERAL PLAN STRATEGIES 1, 3, 6, 7, AND 8; IT WOULD, HOWEVER, BE INCONSISTENT WITH STRATEGY 4 WITH REGARD TO FULLY FUNDING ITS OWN SERVICES. THE SPECIFIC PLAN WOULD BE GENERALLY CONSISTENT WITH GENERAL PLAN CONCEPTS, BUT INCONSISTENT WITH ONE PLAN CONCEPT UNTIL ANNEXATION INTO SPECIAL DISTRICTS IS APPROVED. IT WOULD BE CONSISTENT WITH LAND USE ELEMENT GOAL 2.1, OBJECTIVES 2.1.1 AND 2.2.2, AND POLICIES 2.1.1.2, 2.1.1.3, 2.1.4.1, 2.1.4.2, 2.1.4.3, 2.1.4.4, 2.1.4.5, 2.1.4.6, 2.1.4.9, AND 2.2.2.6; IT WOULD, HOWEVER, BE INCONSISTENT WITH OBJECTIVE 2.1.4 UNTIL ANNEXATIONS INTO SPECIAL DISTRICTS ARE APPROVED. GENERAL PLAN INCONSISTENCIES ARE CONSIDERED A SIGNIFICANT IMPACT.

Consistency with Plan Strategies

General Plan Strategy 1 emphasizes that growth should be focused in the westernmost portion of the County and the location of the Carson Creek Specific Plan is consistent with that strategy.

Plan Strategy 3 encourages growth that reflects the existing scale and character of development in the area and recognizes that planned developments are an effective planning tool to maximize community identity and minimize impact on the surrounding area. The proposed project consists of a mix of uses including residential that varies in density, type (single- and multiple-family residential), commercial, business park, industrial, open space, and school(s). The El Dorado Hills area has recently been developing in residential, commercial, business park, and other uses that are more urban, than rural, in character. For example, the El Dorado Hills Specific Plan provides for single- and multi-family residential (refer to Project Description, Section 3.3) and will provide additional golf course and golf facilities, and a variety of non-residential uses. Springfield Ranch (formerly known as "Joerger Ranch") was approved by El Dorado County in 1992 for 283 dwelling units and 26.9 acres of open space. Rancho Dorado was approved in 1993 by the County for 207 residential lots, along with 31.5 acres of open space, and 3.2 acres of public park uses. Springfield Meadows is an existing residential community north of the project site consisting of approximately 43 dwelling units. The proposed project site is also bordered on the east by the 900-acre El Dorado Hills Business Park.

The proposed project would provide for land uses that are similar in type to planned and developing projects in the general area; nevertheless, it would allow for residential development intensity that is somewhat higher. Springfield Meadows is at a density of approximately 1 du/ac. The Springfield Ranch and Rancho Dorado projects were approved for relatively low density residential uses. Springfield Ranch residential will range from a low of 0.74 du/ac to a high of 2.73 du/ac, while residential uses on Rancho Dorado will be at a density of 2.5 du/ac (densities calculated within residentially-designated property only, not on the total project acreage). Development within the El Dorado Hills Specific Plan area would provide residential uses ranging from less than 1 du/ac to 7 du/ac. The Carson Creek Specific Plan would allow for residential densities that average 5.7 du/ac, but that would range up to 20 du/ac; approximately 15.5 (3.3%) acres of residentially designated properties would be at 8 du/ac or higher.

The location of proposed residential uses that are 8 du/ac or higher are, however, either internal to the project site or adjacent to the business park. The northern portion of the proposed project which would be located across from Springfield Meadows, and would be closest in proximity to Springfield Ranch, is designated primarily for residential (up to 5 du/ac). The highest density residential uses would be located adjacent to the El Dorado Hills Business Park, or located on internal project streets.

In summary, the Carson Creek Specific Plan would allow for land uses similar to existing and developing uses in the western County area. Although the allowed residential densities would be higher in the proposed project than for surrounding projects, it would be, due to location, not readily visible to existing uses in the area and would not, therefore, be considered inconsistent with land uses in the area.

Plan Strategy 4 specifies that new development fund its own services. The potential project impact regarding consistency with this Plan Strategy is derived from the collective conclusions found in Sections 4.13 through 4.21 of this EIR, and Chapter 5.0. In general, these sections indicate that the proposed project, without mitigation, would not fully fund sheriff, parks and recreation, and water and fireflow services. The fiscal analysis (Chapter 5.0) concludes that the proposed project, without mitigation, would result in a negative fiscal impact to the El Dorado County General Fund, and the El Dorado Hills CSD. (Mitigation measures are available to reduce service impacts to a less-than-significant level.) Given these considerations the proposed project would not fully fund its own services and, without implementation of mitigation measures, would be inconsistent with Plan Strategy 4.

Plan Strategies 6 and 7 are aimed at providing land use types and densities sufficient to meet future growth needs. The Carson Creek Specific Plan is identified on the land use plan for the use proposed. As a part of designating land uses for the General Plan, El Dorado County has evaluated future growth potential and land use needs to meet that potential. Since the proposed project is consistent with General Plan land uses, it would be consistent with Plan Strategies 6 and 7.

Related to the proposed project, Plan Strategy 8 directs the County to recognize economic development as an integral part of new communities and allow for diversity of development type. The proposed Specific Plan designates a variety of non-residential land uses including local commercial and research and development. As indicated in Section 4.4 (Population, Employment, and Housing) of this EIR, the proposed project is anticipated to provide for up to approximately 200 new construction jobs at any time during the estimated 15-year buildout period, and up to 3,972 permanent jobs at buildout. Since the proposed project designates a variety of employment-generating uses, it would be consistent with Plan Strategy 8.

Consistency with Plan Concepts

The Plan Concepts discuss boundaries between Community Regions, Rural Centers, and Rural Regions and states that "... growth will be directed and facilitated ..." in Community Regions. Since the proposed project would accommodate growth, consistent with the Community Region designation in which it is located, it would be consistent with this Plan Concept.

Plan Concepts also specify that Community Regions, in which the proposed project is located, provide higher levels of infrastructure and public services, and minimize demands on services in Rural Regions. The Specific Plan project proposes to be located within, or annex into, EID, the El Dorado Hills Water Fire District, and the El Dorado Hills CSD, and form assessment districts, Mello Roos districts, or landscaping and lighting districts to provide several public services and utilities. These service districts are intended to provide necessary services within their boundaries. Currently, however, the project area

is not located within service districts necessary to provide a complete range of services. Therefore, "adequate infrastructure and services" are not available until such annexations are complete; consequently, the proposed project would be inconsistent with this Plan Concept at this time. (Please also refer to discussions found in Sections 4.13 through 4.21 of this EIR, and Chapter 5.0.)

Consistency with Goals, Objectives, and Policies

The proposed project would be consistent with General Plan Goal 2.1 which states, in part, "... creation of new sustainable communities ..., and mixed and balanced uses that promote use of alternate transportation systems." The Specific Plan would allow a diversity of employment uses, schools, and open spaces to serve future residents accommodated in the project area. Moreover, it identifies an area for a mass transit station, should that service be extended to the Specific Plan area, an associated park-and-ride lot, and pedestrian and bicycle trails/paths throughout the project.

Goal 2.1 is further defined by following objectives and policies. Objective 2.1.1 relates to Community Regions which will be provided in the General Plan to accommodate growth while protecting existing community character. The proposed project, formed to accommodate future County growth, is located within a designated Community Region. Policies 2.1.1.2 and 2.1.1.3 provide more specific direction for development within Community Regions. Policy 2.1.1.2 states that the highest intensity of development will occur within Community Regions, based on municipal boundaries, availability of infrastructure and public services, and other development and circulation patterns. The proposed project would allow for some of the highest development intensity in El Dorado County as permitted under land use designations for the project area.

Policy 2.1.1.3 directs the County to allow for mixed use development on parcels within Community Regions, as long as commercial uses dominate; the residential component of mixed use developments cannot exceed 10 du/ac. No mixed use development is proposed under the Carson Creek Specific Plan. Therefore, no inconsistencies with Policy 2.1.1.3 are anticipated.

Objective 2.1.4 and related policies are directed at planned communities. Objective 2.1.4 is aimed at the creation of balanced communities in areas identified as suitable for intensive development due to the availability of adequate infrastructure and services. The General Plan designates the project area as a Community Region intended to allow for the most intensive development levels in the County and consequently the type of development proposed by the project would be appropriate in that geographic area. Portions of the project area are located within the district boundaries of the EID and the El Dorado Hills County Water District. The remaining project areas are proposed to be annexed into other service districts as available to support or provide parks and recreation, fire and ambulance/paramedic, water, and wastewater services. Currently, however, the project area is not located within service districts

necessary to provide a complete range of services. Therefore, "adequate infrastructure and services" are not available until such annexations are complete; consequently, the proposed project would be inconsistent with Objective 2.1.4 at this time.

Policy 2.1.4.1 specifically identifies "Carson Creek" (the proposed project site) as a planned community. Policy 2.1.4.2 specifies that planned communities be designed with an emphasis on transportation modes other than automobiles. As discussed with regard to Goal 2.1, the proposed project does allow for, and designates land to accommodate alternative transportation. Policy 2.1.4.3 requires that a specific plan be prepared for all Planned Community (-PC) areas and that land uses be designated. The Carson Creek Specific Plan contains a Development Plan that locates and describes intended land uses (and other specific plan components), and Development Standards identifying land use regulations; consequently, the proposed project is consistent with Policy 2.1.4.3. Furthermore, the proposed Specific Plan would not allow for more residential units than provided in Policy 2.1.4.3 (Table 4.2-1).

Policy 2.1.4.4 provides a list of 21 examples of negotiable design features for "public benefit" to be included in specific plans for planned communities. The proposed Specific Plan incorporates many of design features listed in Policy 2.1.4.4 including, but not limited to, separated bicycle and pedestrian paths, on-street parking, reduced building setbacks, street landscaping within medians and along sidewalks, bus and commuter transit stops, dedicated open space, common parking proposed in business areas, parks, a town center, and housing for all income levels. Therefore, the proposed project would be consistent with Policy 2.1.4.4.

Percentages of land uses are provided in Policy 2.1.4.5 that indicate the County's overall desired land use mix for planned communities. The percentages are permitted to be refined and defined through planned community specific plans. The County's target land use mix is indicated below (Table 4.2-2), as are the percentages of land uses proposed with the Specific Plan project. As indicated in Table 4.2-2, the proposed project are generally consistent with El Dorado County land use targets although proposed residential uses are somewhat higher. Since the proposed project generally meets the County land use mix targets, and Policy 2.1.4.5 allows for some "refinement" through the specific plan process, it would be considered consistent with the policy.

Policy 2.1.4.6 provides that in areas designated Planned Community (-PC), no land divisions shall occur until the County adopts a specific plan. Policy 2.1.4.9 provides that parcels within a -PC designated area shall not be subdivided below 40 acres until a specific plan or other planning document is adopted by the County. Because development pursuant to the proposed Specific Plan would not occur without approval and adoption of the Specific Plan, the proposed project would be consistent with Policies 2.1.4.6 and 2.1.4.9.

TABLE 4.2-2
EL DORADO COUNTY LAND USE PERCENTAGES AND PROPOSED LAND USE MIX

Land Use Type	County Land Use Percentage	Proposed Project Percentage
Residential	40-50%	66%
Commercial/Office	1-15%	2%
Research & Development/Industrial	0-15%	7%
Public Facilities/Parks/Open Space	20(+)%	25%
Total	NA	100%

Source: Michael Brandman Associates 1996

Objective 2.2.2 and associated policies relate to overlay designations. The proposed project is located within a Planned Community (PC) overlay, which are described by Objective 2.2.2 as generally intended to provide additional land use guidance to the underlying land use designation.

Policy 2.2.2.6 describes the PC overlay as a designation used: in new community areas that require specific plans, and common planning and funding for infrastructure and life cycle costs; to encourage contemporary and efficient planning techniques and are allowed development flexibility; to reduce development costs, and provide compatible land uses; to encourage efficient use of public infrastructure and services; to allow for intensive/clustered development areas and thereby create open space; and to provide for public benefit.

With regard to Policy 2.2.2.6, the Carson Creek Specific Plan does provide areas of higher intensity development, such as multi-family residential. Major roadways direct traffic into higher intensity development areas, with local streets, pedestrian trails, and bikeways leading into lower intensity residential areas. The Specific Plan also retains 142.8 acres of natural open space features including Carson Creek and its major tributaries. It establishes 31.2 acres of parks, including a 19.1-acre regional park. Although the design of the proposed project would not be considered "clustered" as the term is normally defined, it does define intensive development areas, which correspond with the circulation network, and reserve open space and park areas.

The proposed project also employs a number of "modern" planning and development techniques such as: identifying a location for a mass transit station and associated parking areas; relying on natural site features for drainage, water quality and flood control; creating landscape parkways and medians on roadways to define roadway hierarchy and enhance pedestrian, bike, and automobile travel; using natural

creeks as a basis for creating pedestrian and bike circulation; and allowing for rear yard garages in single-family developments.

The diversity of land uses, as mentioned with regard to General Plan Strategy 3 and Concept 4, are complementary, as directed by Policy 2.2.2.6, in that employment uses, parks, schools, and open space uses are planned to serve residential uses also planned in the project area. In addition to locating and describing land uses, the Specific Plan includes development regulations including permitted and conditionally permitted uses, site development standards (e.g., setbacks), performance standards, and implementation and administration guidance. Overall, then, the proposed project would be considered consistent with Policy 2.2.2.6 given the type, diversity, intensity, and distribution of land uses, the planning techniques employed, and the common planning guidance applied to the entire specific plan area.

> IMPACT 4.2-4: ZONING CONSISTENCY. THE PROPOSED PROJECT WOULD ITSELF ESTABLISH ZONING FOR THE PROJECT AREA AND, THEREFORE, INCONSISTENCIES WOULD NOT RESULT. THIS IS CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

Zoning on the project site is currently established in the Salmon Falls/El Dorado Hills Area Plan. With the January 1996 adoption of the El Dorado County General Plan, however, the project site was given the Planned Community (-PC) overlay designation. To establish consistency with the new General Plan, the project would be required to process a specific plan to, among other reasons, establish land uses for the project area. The Carson Creek Specific Plan is proposed to be adopted by Ordinance, and provides development regulations that, along with designated land uses, would become the zoning for the project site. Given the processing requirements for the project site (specific plan), and the proposal for the specific plan to be adopted by Ordinance, approval of the proposed project would establish zoning for the site and zoning consistency would be accomplished.

> IMPACT 4.2-5: CONSISTENCY WITH SPECIAL DISTRICTS. THE SOUTHERN PORTION OF THE PROJECT SITE IS CURRENTLY LOCATED INSIDE CSA NO. 9, ZONE 17, AND OUTSIDE OF EID, AND THE EL DORADO HILLS COUNTY WATER FIRE DISTRICT. IT IS OUTSIDE, AND DISCONTIGUOUS TO, THE EL DORADO HILLS CSD. UNTIL LAFCO APPROVAL FOR DE-ANNEXATION AND ANNEXATIONS ARE COMPLETE, THE SITE IS NOT LOCATED WITHIN APPROPRIATE SERVICE DISTRICTS. THIS WOULD BE A SIGNIFICANT IMPACT.

Discussion regarding the effects of the proposed project on services districts is found in several locations in this EIR including: 4.18 (Water Service), 4.19 (Wastewater Service), and Chapter 5.0 (Fiscal Analysis). The evaluation of potential project impacts on services districts in this section (4.2, Land Use) focuses on whether or not the proposed project is located within services district boundaries, but does not evaluate project effects on the provision or cost of services; those evaluations are found in other sections, as mentioned above.

The Euer Ranch (northern) portion of the project site is located within EID and the El Dorado County Water District (sometimes referred to as the El Dorado Hills County Water Fire District). According to LAFCO (Stone 1994), the proposed project would be required to process annexations, and de-annexations from various agencies for the provision of public services and utilities. Specifically, LAFCO states that the project site would need to de-annex from CSA No. 9, Zone 17, annex the southern portion of the site into the EID and El Dorado Hills County Water Fire District, and annex the entire site into the El Dorado Hills Community Services District (CSD). The de-annexation and annexations required for the project must be processed through LAFCO.

In a comment letter (Stone 1994) received on the Notice of Preparation circulated for the proposed project, LAFCO indicates that the project site is "... contiguous to that [El Dorado Hills CSD] District's boundary only at a point along White Rock Road." LAFCO generally requires contiguous land as one criteria for recommending approval of annexation areas. Since LAFCO's comment letter, the project applicant solicited land owners in the El Dorado Hills Business Park, which separates the Specific Plan site from the El Dorado Hills CSD, to join the CSD. With annexation of the El Dorado Hills Business Park to the CSD, contiguous land area would be created providing justification to allow annexation of the Carson Creek Specific Plan area into the district. However, land owners at the business park declined. The LAFCO letter states that without contiguous property, "... extensive justification ..." would be required to obtain a LAFCO recommendation on the annexation of the Specific Plan area into the CSD.

In 1990, the Carson Creek Specific Plan applicant also applied to LAFCO for reorganization of service district boundaries. In that application, the southern portion of the site (formerly "Carson Creek Ranch") would be annexed into EID, the El Dorado Hills County Water Fire District, and the El Dorado Hills CSD. However, at this time, the district boundaries have not been adjusted to accommodate the Specific Plan area, and it is unknown whether or not LAFCO would approve annexation of a discontiguous property into the El Dorado Hills CSD. Therefore, until district reorganizations are approved, the site is not located within service agencies for the provision of water, sewer, and parks and recreation services, and a significant impact would result.

> IMPACT 4.2-6: CONSISTENCY WITH AGRICULTURAL PRESERVES. A NOTICE OF NONRENEWAL WAS FILED ON THE SOUTHERN PORTION OF THE PROJECT SITE, THE ONLY PORTION UNDER A WILLIAMSON ACT CONTRACT. IMPLEMENTATION OF THE PROPOSED PROJECT DOES NOT EFFECT THE WILLIAMSON ACT STATUS AND, CONSEQUENTLY, A LESS-THAN-SIGNIFICANT IMPACT TO AGRICULTURAL PRESERVES WOULD RESULT.

A majority of the project area (southern portion) is under an active Williamson Act contract. Removal of land from agricultural preserve status would be considered a conflict with protection of agricultural

lands. A Notice of Nonrenewal was filed for the southern project site, which will roll out of Williamson Act contract status, according to El Dorado County records, on February 28, 2000. Until the site is out of Williamson Act, development cannot occur on the property. The contract could be terminated at an earlier date, with agreement by El Dorado County, but a penalty would be charged to the property owner. The northern portion of the project site, generally corresponding to the Euer Ranch, is not in Williamson Act and therefore, is not under a development constraint.

Although the southern portion of the site is being removed from Williamson Act status, removal from the agricultural preserve is inevitable with, or without, the proposed project. Removal of the southern portion of the site from agricultural preserve is not, therefore, an effect of the proposed project. Consequently, implementation of the proposed project would result in a less-than-significant impact to agricultural preserves.

4.2.3 MITIGATION MEASURES

Mitigation measures are provided below to reduce significant or potentially significant land use impacts of the proposed project to the extent feasible. As discussed in Section 4.1 (Introduction to Environmental Analysis), mitigation measures are numbered corresponding to the number of the impact to be mitigated.

MITIGATION MEASURE 4.2-3: GENERAL PLAN CONSISTENCY.

Apply mitigation measures 4.14-1, 4.14-2, 4.16-1, 4.18-1, 5-1, and 5-3 and no further mitigation is required.

MITIGATION MEASURE 4.2-5: CONSISTENCY WITH SPECIAL DISTRICTS.

Apply mitigation measures 4.14-1, 4.14-2, 4.16-1, 4.18-1, 5-1, and 5-3 and no further mitigation is required.

4.2.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Following implementation of the above mitigation measures, project impacts on General Plan Consistency and Consistency with Special Districts would be reduced to a less-than-significant level.

4.3 AESTHETICS

This section has been prepared based on information collected during two site visits in the spring and winter of 1995. The environmental analysis is based on the potential change in views as seen from publicly-accessible locations--where photographs were taken. From the west, views from public roadways are obstructed by hills. Views from the south are generally inaccessible to the public due to the presence of a lumber mill (Wetsel-Oviatt) and the lack of public roadways. Therefore, the following evaluation generally focuses on the potential alteration of views from northern and eastern areas.

4.3.1 ENVIRONMENTAL SETTING

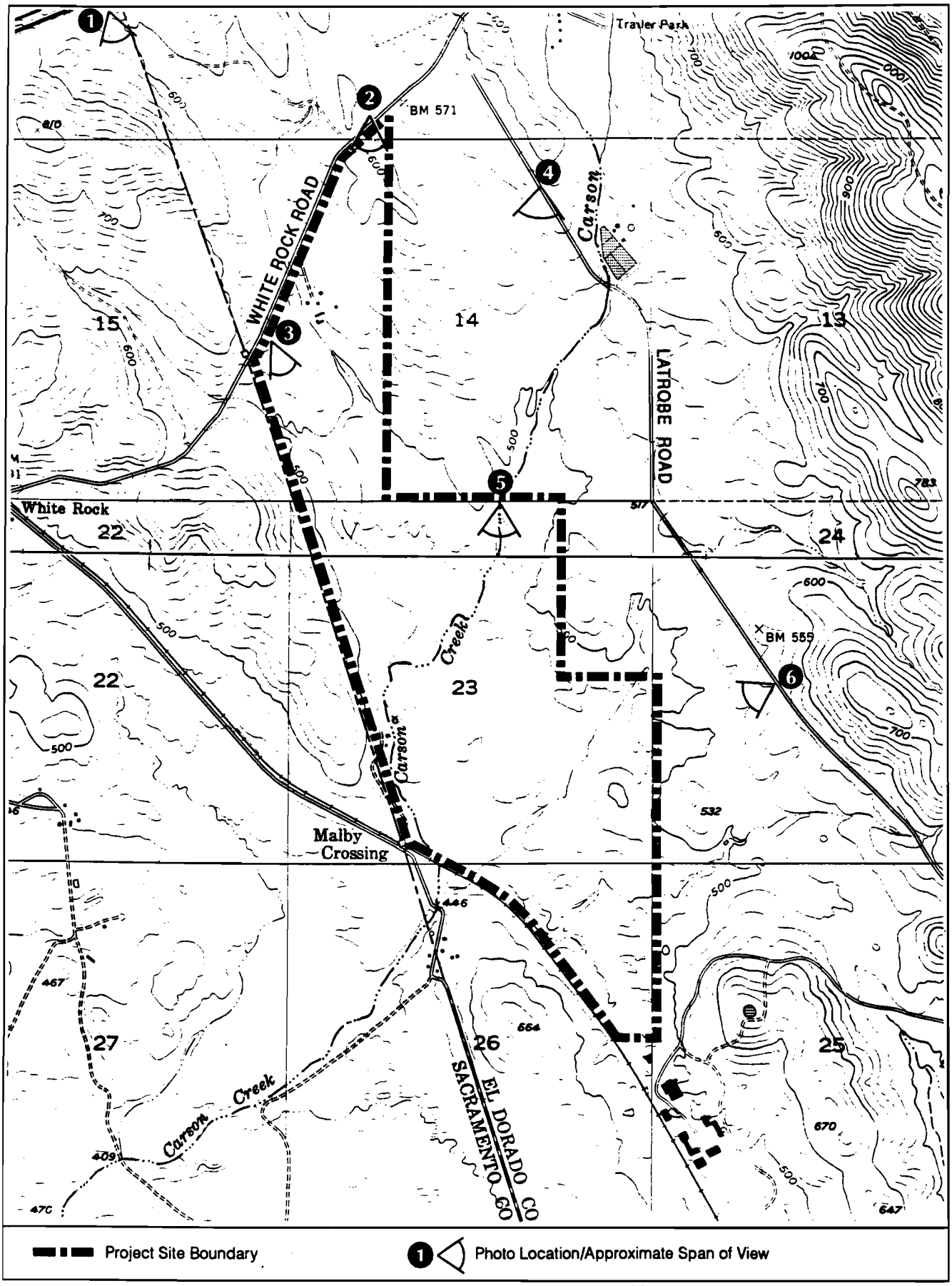
Both distant and close-range views of the site are accessible from northern and eastern project areas. The site is located in a gently rolling valley situated between foothills. Site photographs were taken to document representative views from several locations, as indicated in Exhibit 4.3-1. Representative views of the project site, organized by photo location, are described below and presented in Exhibits 4.3-2 through 4.3-5.

PHOTO LOCATION 1 - U.S. HIGHWAY 50

U.S. Highway 50 provides key vehicular access from the Sacramento metropolitan area in the west, to Lake Tahoe, the state of Nevada, and areas farther east. It is a heavily traveled highway during all times of the year. Travelers along U.S. Highway 50 have distant limited views of the Carson Creek site (Exhibit 4.3-2). From the highway, vacant rolling hills dominate foreground views. Drainages are also seen in the foreground and in mid-range views. Areas for viewing distant land are limited by the rolling topography along the highway. Where topography allows, distant views of the El Dorado Business Park can be seen, with rolling hills beyond.

PHOTO LOCATION 2 - WHITE ROCK ROAD AT MANCHESTER LANE

White Rock Road provides access from Folsom and other communities in Sacramento County to the El Dorado Hills area and to U.S. Highway 50 (at the Scott Road and El Dorado Hills/Latrobe Road on-/off-ramps). Manchester Lane is an entrance to the Springfield Meadows residential area located north of the project site, across White Rock Road. Springfield Meadows residents and travelers along White Rock road would be the primary viewers of the project site at this location. As presented in Exhibit 4.3-2, views of the site include an undeveloped topographic rise of land on the Carson Creek site in the foreground. Portions of the El Dorado Business Park, east of the project site, can be seen in the mid-



Base Map Source: Clarksville and Folsom SE, California U.S.G.S. Topographic Quadrangle Maps.

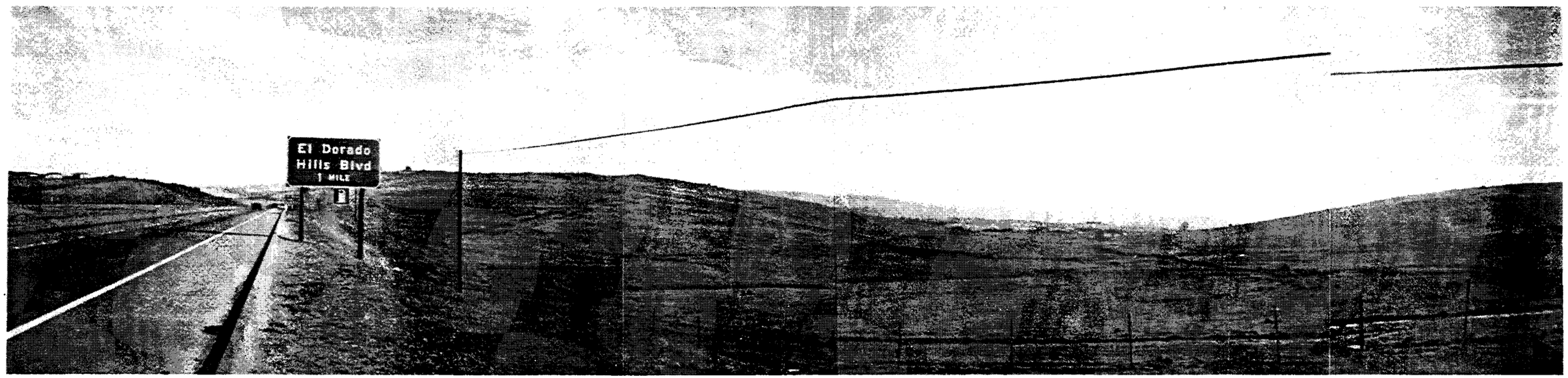
Photo Index

EXHIBIT 4.3-1

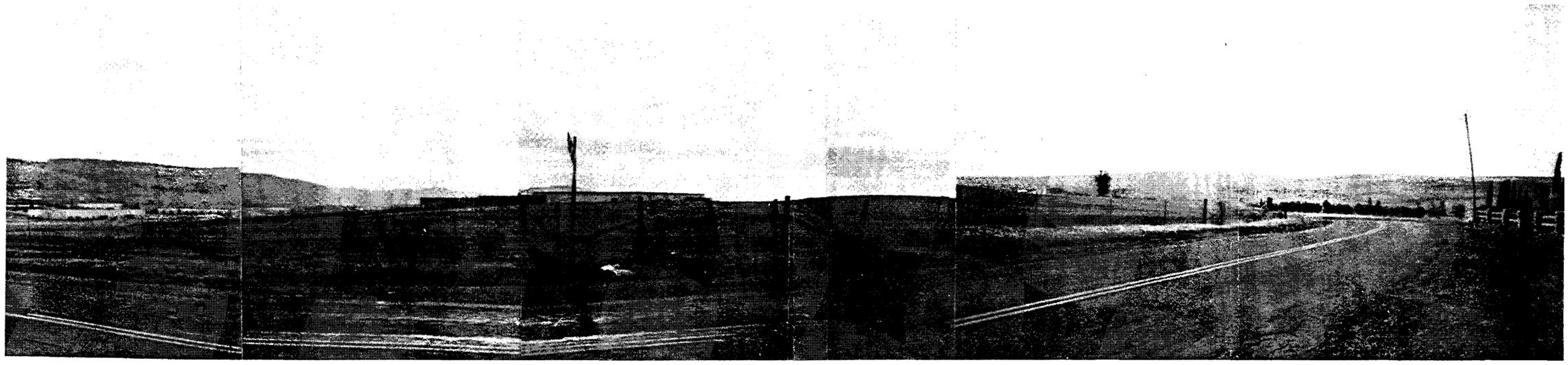
CARSON CREEK SPECIFIC PLAN

0 500 1000 2000 FEET

NORTH



1. View from U.S. Highway 50 just west of the El Dorado/Sacramento County line, looking south. The proposed project site is located in the distance and development would occur in the lowlands adjacent to existing structures seen in the background.

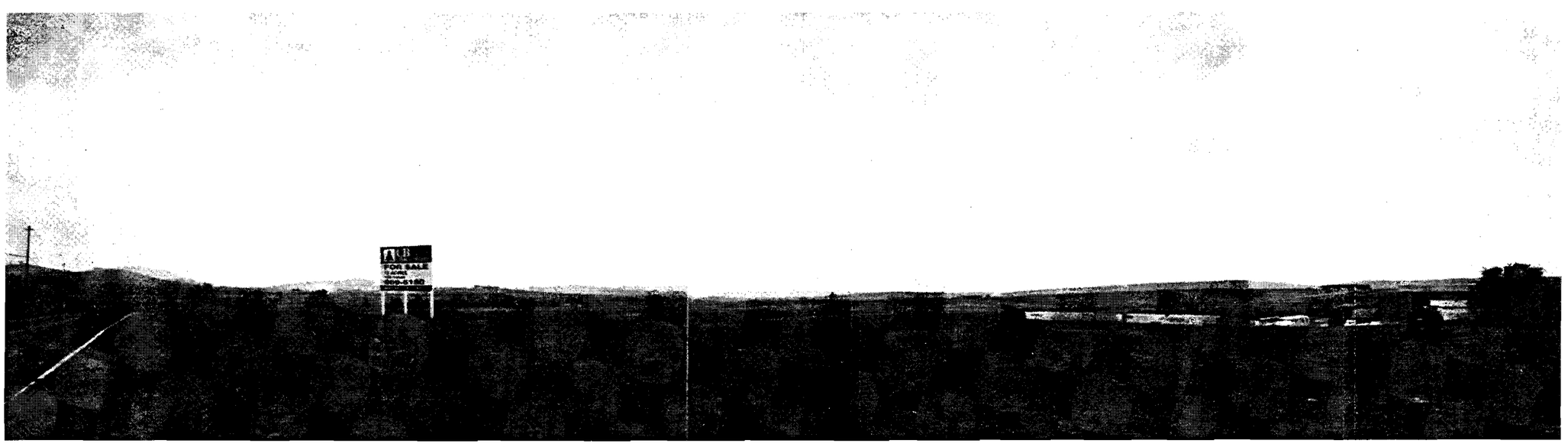


2. View from White Rock Road at Manchester Lane looking south at the northern end of the project site. El Dorado Hills Business Park uses are seen in the mid-range view, east of the project site with foothills in the distance. A 30-foot wide heavily landscaped greenbelt would be viewed on the project site at this location, with single family residential behind.

Photo Locations 1 and 2

EXHIBIT 4.3-2

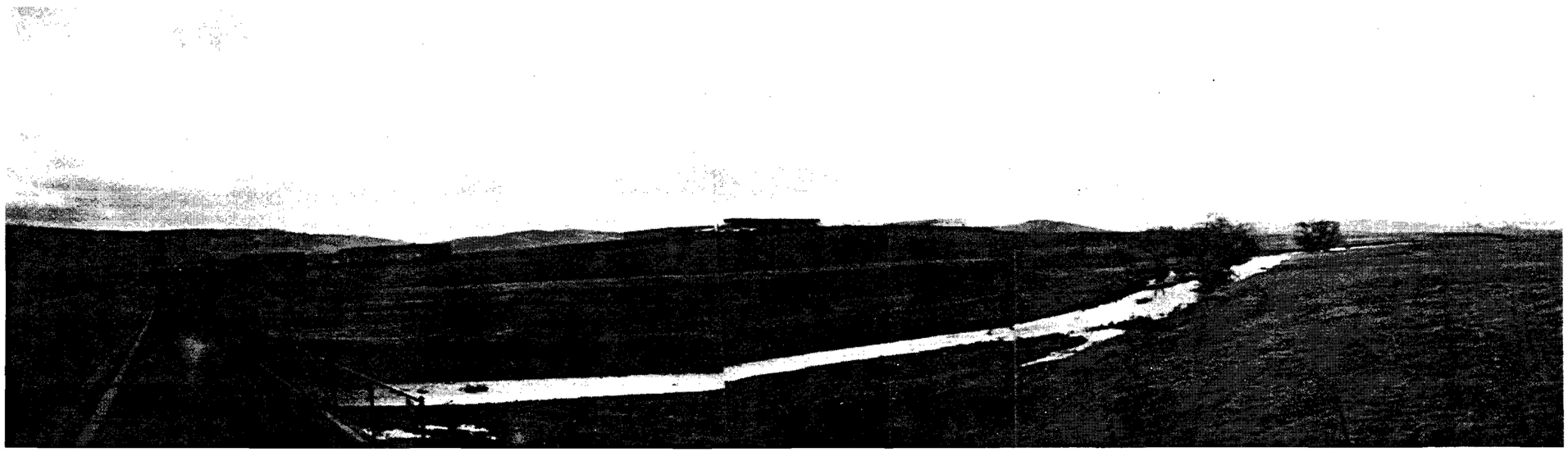
3. View from White Rock Road at the El Dorado/Sacramento County line looking south. Expansive, unobstructed views across the project site are available at this location. Business park uses are seen the the mid-range (left side of photo), and foothills are observed in the distance. Behind a proposed 30-foot wide heavily landscaped greenbelt, the project would include a local commercial center, and multi-family uses at this location, with single family uses behind.



4. View from Latrobe Road at Golden Foothill Parkway (northern entrance) looking southwest. Vacant land in the foreground is planned for business park uses. Construction units and business park uses are visible in the foreground, and some business park uses are seen in the distance. The project site is located behind the distant business park uses.

Photo Locations 3 and 4

EXHIBIT 4.3-3



MATCH LINE

5. View from Golden Foothill Parkway, in the business park, at Carson Creek looking south. Broad views of the site are available here, including an unobstructed view of Carson Creek. Business park uses are seen in the mid-range to the east of the site. The project would retain the creek in open space use, with pedestrian facilities. The predominant planned land use is the multi-family residential in this area, although a local commercial center would be located on one side of the creek.

MATCH LINE

Photo Location 5

EXHIBIT 4.3-4

6. View looking west from Latrobe Road at Investment Boulevard, which is an entrance to the El Dorado Hills Business Park. Foreground views include landscaping for the business park, and vacant land. Business park uses are visible in the mid-range and distance. The project would develop business park uses behind those visible in the photograph.

Photo Location 6

EXHIBIT 4.3-5

range views. There are views of rolling hills in the distance, east of the business park, and north and south of White Rock Road to the west of the project site. The Euer Ranch, which would remain with the proposed project, can be seen in the distance south of White Rock Road. Fencing along Springfield Meadows and overhead power lines can be seen in the foreground along the north side of White Rock Road.

PHOTO LOCATION 3 - WHITE ROCK ROAD AT EL DORADO/SACRAMENTO COUNTY LINE

Views of the gently rolling, undeveloped land are unobstructed from the El Dorado/Sacramento County line to passersby traveling along White Rock Road (Exhibit 4.3-3). A portion of Euer Ranch can be seen to the east, along with agricultural equipment and structures related to the ranch. Portions of the El Dorado Hills Business Park can be seen in the distance to the east. The beginnings of the foothills can be seen in the distance beyond the business park. Two trees and rural fences are visible across the project site.

PHOTO LOCATION 4 - LATROBE ROAD AT GOLDEN FOOTHILLS PARKWAY

Latrobe Road provides access from U.S. Highway 50 to the El Dorado Hills Business Park, and to rural communities to the south. Golden Foothills Parkway is a primary access into the business park from Latrobe Road. From this location, vacant land, which is planned for additional El Dorado Business Park uses, can be seen (Exhibit 4.3-3). Some El Dorado Hills Business Park uses and temporary construction offices are seen at close range. An open drainage channel is visible alongside Latrobe Road. Business park roadways, currently few in number, can be seen mid-range and at a distance. A few existing light industrial buildings of the business park can be viewed in the distance from this location.

PHOTO LOCATION 5 - GOLDEN FOOTHILLS PARKWAY AT CARSON CREEK

Photo Location 5 includes views from Golden Foothills Parkway, located in the El Dorado Hills Business Park, looking south across the project site (Exhibit 4.3-4). This location provides unobstructed views of the site, with business park uses on a small knoll to the east in a mid-range view. Carson Creek is the predominant visual feature in the foreground, as is the open, gently sloping land of the site itself. From this location, almost the entire southern portion of the project site can be observed. Foothills are visible in the distance to the east beyond the business park. Rolling hills are viewed west and southwest of the site along with a distant home, west of the site.

PHOTO LOCATION 6 - LATROBE ROAD AT INVESTMENT BOULEVARD

Investment Boulevard is another access road from Latrobe Road into the El Dorado Hills Business Park. As seen in Exhibit 4.3-5, a landscape berm of the Investment Boulevard entrance can be seen with vacant land and business park uses behind. Small open drainages cross the vacant land and extend into the business park and to the Carson Creek property further to the west. A portion of the south area of the project site is visible in the distance. A rural residence and agricultural out-buildings are visible beyond the project site in the distance, with rolling hills beyond.

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

Goal 2.3: Natural Landscape Features - Maintain the characteristic natural landscape features unique to each area of the County.

Goal 2.5: New Community Identity - Carefully planned communities incorporating visual elements which enhance and maintain the rural character and promote a sense of community.

Objective 2.5.1: Physical and Visual Separation - Provision for the visual and physical separation of communities from new development.

Policy 2.5.1.1: Low intensity land uses shall be incorporated into new development projects to provide for the physical and visual separation of communities. Low intensity land uses may include any one or a combination of the following: parks and natural open space areas, special setbacks, parkways, landscaped roadway buffers, natural landscape features, and transitional development densities.

Policy 2.5.1.2: Greenbelts or other means of community separation shall be included within a specific plan and may include any of the following: preserved open space, parks, agricultural districts, wildlife habitat, rare plant preserves, riparian corridors, and designated Natural Resource areas.

4.3.2 ENVIRONMENTAL IMPACTS

The primary effects of implementation of the Carson Creek Specific Plan on visual resources could include obstruction of views from publicly accessible locations, substantial and adverse changes to visual resources, or creation of visual amenities. It should be noted that an evaluation of significance of the proposed project on visual resources is partly, and by necessity, qualitative and requires a judgment as to the degree of change, and the introduction/removal of elements that are observed within a viewshed. In this evaluation, the potential changes that would occur with the proposed project are described and related to the photographs of existing conditions.

THRESHOLDS OF SIGNIFICANCE

With regard to aesthetics, Appendix G of the State CEQA Guidelines states that a project will normally have a significant affect on the environment if it would:

- have a substantial, demonstrable negative aesthetic effect

Criteria to be included in this analysis of "demonstrable negative aesthetic effect" include substantial obstruction of existing views normally considered pleasing by the community, or substantial introduction of displeasing features into a viewshed.

IMPACTS

> IMPACT 4.3-1: U.S. HIGHWAY 50. VIEWS FROM U.S. HIGHWAY 50 TO THE PROJECT SITE WOULD NOT BE SUBSTANTIALLY ALTERED WITH THE PROPOSED PROJECT BECAUSE OF EXISTING LIMITATIONS IN VIEW ACCESSIBILITY, AND BECAUSE WHAT IS OBSERVED WOULD NOT BE NOTICEABLY DIFFERENT THAN WHAT EXISTS. THIS IS A LESS-THAN-SIGNIFICANT IMPACT.

Views of the project site from U.S. Highway 50 are limited due to rolling hills that block views of the site, and the distance of the site from the highway. Urban structures can be observed from infrequent locations along U.S. Highway 50; however, the types of buildings cannot be distinguished from the highway due to distance. Views of the project site are not expected to be substantially altered with the proposed project because of existing limitations in view accessibility.

> IMPACT 4.3-2: WHITE ROCK ROAD AT MANCHESTER LANE. VIEWS OF THE PROJECT SITE ALONG WHITE ROCK ROAD AT MANCHESTER LANE ARE UNOBSTRUCTED, AND PREDOMINANTLY INCLUDE GENTLY SLOPING, UNDEVELOPED TERRAIN. VIEWS OF UNDEVELOPED LAND WOULD BE SUBSTANTIALLY ALTERED BY PROPOSED DEVELOPMENT. A 30-FOOT WIDE HEAVILY LANDSCAPED GREENBELT WOULD REDUCE THESE IMPACTS BUT NOT TO A LESS-THAN-SIGNIFICANT LEVEL. THIS IMPACT WOULD BE CONSIDERED SIGNIFICANT.

Unobstructed views of the project site are available from White Rock Road at Manchester Lane. Views here include predominantly rolling and undeveloped terrain, with some business park uses in the mid-range and distant views. The proposed project would develop single-family residential in this portion of the site. A 30-foot wide heavily landscaped greenbelt is also proposed to be installed along the project boundary on the south side of White Rock Road. Views of this portion of the site would be substantially altered as perceived by travelers along White Rock Road with the introduction of new landscaping, and urban development that would be visible from several locations in this general area. Views of rolling

hills in the distance would be expected to remain. Views of vacant and rural lands east and west of the project site along White Rock Road would remain unchanged. However, the dominating visual resource along White Rock Road near Manchester Lane is the open view of undeveloped land which would be substantially developed with the proposed project. The greenbelt would screen foreground views of development planned on the northern portion of the project site, and some of the business park uses seen from this location. Nonetheless, unobstructed views of vacant land would be obstructed with the proposed project. In conclusion, while the 30-foot wide greenbelt would reduce visual impacts, the proposed project would still substantially obstruct the open views of gently rolling, undeveloped land and a significant aesthetic impact would result from this general location.

> IMPACT 4.3-3: WHITE ROCK ROAD AT EL DORADO/SACRAMENTO COUNTY LINE. OPEN VIEWS OF UNDEVELOPED, GENTLY SLOPING LAND ALONG WHITE ROCK ROAD NEAR THE SACRAMENTO COUNTY BORDER WOULD BE SUBSTANTIALLY ALTERED BY INTRODUCTION OF NEW PROJECT DEVELOPMENT. A 30-FOOT WIDE HEAVILY LANDSCAPED GREENBELT WOULD REDUCE THE VISUAL EFFECTS OF URBAN DEVELOPMENT, BUT OBSTRUCTION OF THE SITE WOULD OCCUR. THIS IMPACT WOULD BE CONSIDERED SIGNIFICANT.

Views across the project site are expansive and unobstructed from this location. The undeveloped gently sloping terrain is visible, as are foothills in the distance. The proposed project would develop local commercial and multi-family uses in this area. These uses would, as in other areas along White Rock Road, be set behind a 30-foot-wide heavily landscaped greenbelt. Development planned with the proposed project would be a substantial change in what is seen from the roadway in this project area because it would introduce new plant materials and obstruct views across the site. The distant foothills would also be expected to remain visible. The 30-foot-wide landscape greenbelt would reduce impacts associated with urban development by providing a buffer for remaining vacant land in the vicinity of the project. In summary, views along White Rock Road near the Sacramento County border would be substantially altered by the proposed project and a significant impact would result.

> IMPACT 4.3-4: LATROBE ROAD AT GOLDEN FOOTHILLS PARKWAY. VIEWS OF THE PROJECT SITE WOULD NOT BE SUBSTANTIALLY ALTERED FROM LATROBE ROAD IN THIS AREA DUE TO DISTANCE AND VIEWING LIMITATIONS FROM TOPOGRAPHY. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Views from Latrobe Road are limited in the vicinity of photo location 4. Viewing limitations occur from topography, where rolling hills block views of the site, and distance. The opportunities to observe new development on the project site would be infrequent. The type of development would also be difficult to determine due to the distance from Latrobe Road to the site. A 30-foot wide heavily landscaped greenbelt is also proposed along the eastern portion of the project site in this area, which would screen

new development behind it. Given these considerations, the proposed project would result in less-than-significant visual impacts from Latrobe Road in the photo location 4 area.

> IMPACT 4.3-5: GOLDEN FOOTHILLS PARKWAY AT CARSON CREEK. THE PRIMARY AESTHETIC FEATURE, CARSON CREEK, WOULD REMAIN UNALTERED WITH THE PROPOSED PROJECT. NONETHELESS, DEVELOPMENT ON SURROUNDING LAND WOULD BE A SUBSTANTIAL AND ADVERSE CHANGE IN EXISTING CONDITIONS. THIS WOULD BE A SIGNIFICANT IMPACT.

From this location views are mostly unobstructed and include the Carson Creek channel, undeveloped gently sloping vacant land, and some business park uses in the mid-range view, with Carson Creek being the key visual amenity. Foothills can be observed in the distance. Travelers along Golden Foothills Parkway are almost exclusively employees of business park uses. The project proposes multi-family uses and a small local commercial center is this general area. A 30-foot wide heavily landscaped greenbelt would also extend to this portion of the project site. The creek would remain in its natural state with pedestrian facilities provided alongside. With the proposed project, a substantial change in the views of open land would result. While the primary aesthetic feature is the creek, which would remain unaltered, development on surrounding land would nonetheless be a substantial change in existing conditions and a substantial impact would result.

> IMPACT 4.3-6: LATROBE ROAD AT INVESTMENT BOULEVARD. USES ON CARSON CREEK WOULD OCCUR BEHIND EXISTING VACANT LAND, LANDSCAPING, AND BUSINESS PARK USES. CARSON CREEK DEVELOPMENT WOULD BE INDISTINGUISHABLE FROM THAT OF THE EL DORADO HILLS BUSINESS PARK BECAUSE THEY WOULD BE THE SAME USE. PROJECT DEVELOPMENT WOULD RESULT IN IMPACTS CONSIDERED TO BE LESS THAN SIGNIFICANT.

The project site is visible in the distance from locations along this portion of Latrobe Road. Existing landscaping associated with the business park, business park uses, and vacant land are visible in the foreground and mid-range of views. The project proposes light industrial uses along the eastern portion of the site in this general location; this would be the same use as the business park which would be observed in front of the Carson Creek project. Since the proposed project would develop in the same type of use as those in closer view to an observer on Latrobe Road, it is expected that the developments would be indistinguishable from one another. Since uses on Carson Creek would occur behind existing vacant land, landscaping, and business park uses, and because they would be indistinguishable from the El Dorado Hills Business Park, project development would result in less-than-significant visual impacts from this general location.

> IMPACT 4.3-7: GENERAL PLAN CONSISTENCY. WITH REGARD TO VISUAL/AESTHETIC ISSUES, THE PROPOSED PROJECT WOULD BE CONSISTENT WITH GENERAL PLAN GOALS 2.3

AND 2.5, AND OBJECTIVE 2.5.1 AND RELATED POLICIES 2.5.1.1 AND 2.5.1.2. PROJECT CONSISTENCY WOULD BE A LESS-THAN-SIGNIFICANT IMPACT.

Goal 2.3 of the General Plan is aimed at retention of natural landscape features unique to areas within the County. Goal 2.5 would have new communities incorporate visual elements which enhance and maintain rural character and promote a sense of community. The proposed project would retain the general topography of the site, Carson Creek, and its tributaries. These are the unique natural landscape features of the project site and would be used as a linear park system and pedestrian trail system of the project. The project would not be rural in character, but is also not designated as such on the General Plan. The Specific Plan would incorporate a visual and natural amenity (Carson Creek and tributaries) which would link portions of the site, include a unique natural element as an established project feature, and allow circulation movement throughout the project; use of the creek system would, therefore, provide a sense of community. In consideration of the above, the project would be consistent with Goals 2.3 and 2.5 of the General Plan.

Objective 2.5.1 and related Policies 2.5.1.1 and 2.5.1.2 are directed at providing a visual and physical separation of new development from existing development. Elements which can be used to provide such separation (per Policies 2.5.1.1 and 2.5.1.2) include low intensity land uses (e.g., open space), greenbelts, or other types of open spaces. As proposed, the project would provide a 30-foot-wide heavily landscaped buffer along the northern and eastern sides which would separate the project from Springfield Meadows on the north and business park uses on the east. It also incorporates Carson Creek and its tributaries, parks, and school sites which would provide separation between areas within the project. Accordingly, the project would be consistent with Objective 2.5.1 and related Policies 2.5.1.1 and 2.5.1.2.

4.3.3 MITIGATION MEASURES

Mitigation measures are provided below to reduce significant or potentially significant aesthetic impacts of the proposed project to the extent feasible. As discussed in Section 4.1 (Introduction to Environmental Analysis), mitigation measures are numbered corresponding to the number of the impact to be mitigated.

MITIGATION MEASURE 4.3-2: WHITE ROCK ROAD AT MANCHESTER LANE.

a) Use a majority of native plant species in the proposed 30-foot greenbelt to maximize a compatible visual relationship with residential uses to the north, and with the surrounding natural terrain and vegetation.

b) Require use of natural colored roof materials in project development to maximize consistency with the surrounding natural environment to minimize stark visual contrasts.

c) Use natural components in fencing materials (e.g., wood, stone, brick) that would be consistent with residential uses to the north, and would enhance visual compatibility with the natural surroundings of the site.

MITIGATION MEASURE 4.3-3: WHITE ROCK ROAD AT EL DORADO/SACRAMENTO COUNTY LINE.

Apply mitigation measure 4.3-2. No other mitigation measures are available.

MITIGATION MEASURE 4.3-5: GOLDEN FOOTHILLS PARKWAY AT CARSON CREEK.

a) Use native plant species as the majority of those planted in the proposed 30-foot greenbelt to maximize a compatible visual relationship with the surrounding natural terrain and vegetation.

b) Require use of natural colored roof materials in project developments to maximize consistency with the surrounding natural environment and to minimize stark visual contrasts.

c) Use natural components in fencing materials (e.g., wood, stone, brick) in developments along Carson Creek to enhance visual compatibility with the natural surroundings of the site.

d) Use natural components in pedestrian trail features (e.g., fences, trail materials) to enhance visual compatibility with the natural surroundings of the site.

e) Retain unobstructed views of Carson Creek from locations along Golden Foothills Parkway.

4.3.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Following implementation of mitigation measures identified above, visual impacts would be reduced, but not to a less-than-significant level. Significant and unavoidable impacts would remain in relation to views from White Rock Road and Golden Foothills Parkway.

4.4 POPULATION, EMPLOYMENT, AND HOUSING

State CEQA Guidelines §15131 provides that economic or social effects alone are not considered to be significant impacts. However, physical changes caused by economic or social effects of a project may be regarded as a significant effect of the project. Alternatively, economic and social effects of a physical change may be used to determine that the physical change has a significant effect on the environment. Accordingly, the impacts of projected changes in population, employment, and housing are considered in analyzing impacts in the other areas considered in this EIR.

4.4.1 ENVIRONMENTAL SETTING

This section describes existing data and trends regarding population, employment, and housing in the project vicinity. Recent growth in western El Dorado County has expanded the population base and increased the demand for housing, schools, and community services.

POPULATION

The population of El Dorado County has increased steadily over the past two decades and is expected to continue to expand. In 1980, the total population of El Dorado County was 85,812 (Employment Development Department 1994). By 1990 the total population of the County had increased by approximately 45%, to 124,730 as shown in Table 4.4-1. The State Department of Finance estimated the population of El Dorado County to be 144,000 as of January 1, 1994. The population of El Dorado County is projected to increase to 218,730 by 2010.

TABLE 4.4-1
POPULATION FORECAST FOR EL DORADO COUNTY 1990 - 2010 [1]

LOCATION	HOUSEHOLD POPULATION			Incremental Population Growth 1990-2010
	1990 [2]	2000	2010	
Placerville	7,789	8,233	8,702	913
South Lake Tahoe	21,426	24,438	27,874	6,448
Unincorporated Area	95,515	136,041	182,154	86,639
El Dorado County	124,730	168,712	218,730	94,000

[1] El Dorado County General Plan 1994
[2] Figure is from the 1990 Census household population which excludes 1,265 persons in institutions

Source: Michael Brandman Associates 1996

EMPLOYMENT

In 1990, total employment in El Dorado County was 34,155 with the largest employment sectors as retail (22.3%) and service (22.3%) as shown in Table 4.4-2. Employment in the year 2000 is projected to increase to 47,533 in the County and the service sector is anticipated to represent the largest employment sector in the County at 25.7%. In the year 2010, the County is projected to have 69,693 jobs with the service sector remaining the largest employment sector (27.6%) within the County.

TABLE 4.4-2
EMPLOYMENT PROJECTIONS WITHIN EL DORADO COUNTY 1990-2010

INDUSTRY	1990		2000		2010	
	Number of Employees [1]	Percentage of Total Employees	Number of Employees [1]	Percentage of Total Employees	Number of Employees [1]	Percentage of Total Employees
BASELINE FORECAST [2]						
Agriculture	300	0.9	300	0.6	300	0.4
Mining	300	0.9	446	0.9	663	1.0
Construction	2,700	7.9	4,019	8.4	5,984	8.6
Manufacturing	2,000	5.8	3,233	6.8	5,227	7.5
T.C.P.U. [3]	800	2.3	916	1.9	1,049	1.5
Wholesale Trade	600	1.7	857	1.8	1,226	1.7
Retail	7,600	22.3	11,034	23.2	16,020	23.0
F.I.R.E. [4]	1,500	4.4	2,101	4.4	2,944	4.2
Services	7,600	22.3	12,084	25.6	19,213	27.6
Government	6,300	18.4	8,222	17.3	10,731	15.4
Self-Employment [5]	4,455	13.1	4,321	9.1	6,336	9.1
Total	**34,155**	**100**	**47,533**	**100**	**69,693**	**100**

[1] El Dorado County General Plan 1996.
[2] Based on Employment Development Department projected growth rates for the 1989 to 1996 period.
[3] Transportation, Communication, Public Utilities
[4] Finance, Insurance, Real Estate
[5] Self-employed is assumed to be 15% of total wage and salary employment in 1990 and forecast to be 10% in future years.

Source: Michael Brandman Associates 1996

The employment projections for the County are still lower than the number of employed residents within the County. Therefore, more employed residents commute than do not.

Although most of El Dorado County's commuting residents will commute along U.S. Highway 50 either west to Sacramento County or east to Nevada, some residents will commute via Highway 49 to Placer County. In 1990, an estimated 24,350 El Dorado County residents commuted out of the County for employment. Of these commuting residents, approximately 6,000 residents commuted to the Nevada side of South Lake Tahoe (El Dorado County 1996a). The majority of the residents commuted west to Sacramento County for employment in 1990. The Employment Development Department (EDD) estimates that in 1992, there were 61,000 employed residents with El Dorado County and 31,400 wage and salary jobs in the County (EDD 1994). Thus, approximately 51% of the employed County residents potentially worked in the County and the remaining 49% were required to either commute outside the County for employment or find self-employment.

HOUSING

El Dorado County had a total of 61,451 housing units in 1990. Approximately 76% (46,884 units) of the 61,451 dwelling units within El Dorado County were single-family detached homes. The number of dwelling units in the County increased by 55% from 1980 to 1990. As shown in Table 4.4-3, by the year 2010, the estimated number of housing units are projected to increase by approximately 54% from 61,451 in 1990 to 94,755 total housing units (El Dorado County 1996a).

The average household size for El Dorado County was 2.66 persons per household in 1990. Average household sizes in El Dorado County vary depending on region. In general, the average household size in El Dorado County increases from east to west. This is primarily due to the large number of seasonal and recreation residences located in the Lake Tahoe basin as well as in the eastern portions of the western slope. Household sizes for El Dorado Hills area are approximately 2.8 persons per household.

In 1990, approximately 24% (14,603 units) of the 61,451 dwelling units within the County were vacant. The high vacancy rate for El Dorado County is primarily attributed to the large number of seasonal recreational residences located in Pollock Pines, Grizzly Flats, and the Lake Tahoe basin, in eastern El Dorado County. In 1990, vacancy rates for the population centers of western El Dorado County (El Dorado Hills, Cameron Park, El Dorado, Diamond Springs, and Placerville) varied between 4.5% and 10% (El Dorado County 1996a).

TABLE 4.4-3
PROJECTED GROWTH IN EL DORADO COUNTY HOUSEHOLDS 1990-2010[1]

GEOGRAPHIC AREA	1990 Census Housing Units	1990 Census Average Persons Per Household	Implied Persons Per Household	Incremental Population Growth 1990-2010	Estimated New Housing Units 1990-2010	Estimated Total Households at 2010	Implied Housing Starts Per Year
Placerville	3,565	2.35	2.28	913	400	4,072	20
South Lake Tahoe [2]	14,066	2.35	2.28	6,448	2,838	16,861	141
Unincorporated Area	43,820	2.92	2.82	86,639	30,772	73,822	1,539
El Dorado County	61,451	2.66	2.76	94,000	34,000	94,755	1,700

[1] El Dorado County General Plan 1996a.
[2] The Figure for South Lake Tahoe includes about 5,000 seasonal units; therefore, the figure does not represent actual households in the City.

Source: Michael Brandman Associates 1996

JOBS/HOUSING BALANCE

The jobs/housing balance is a measure of an area's total jobs compared to total housing. The general measure of an area's jobs/housing balance is the ratio of jobs to employed residents. If the ratio of jobs to employed residents is 1, there is potentially one job for every employed resident and the area is considered to be "in balance." When the ratio of jobs to employed residents deviates significantly from 1, this implies that people are forced to commute to or from other areas for work, thereby contributing to traffic and air quality problems (El Dorado County 1996a).

El Dorado County is currently an exporter of labor, with more people commuting to employment outside the County than into the County. In 1990, the ratio of jobs to employed residents in El Dorado County was 0.59. This ratio is expected to increase to 0.64 by 2010 (see Table 4.4-4). This projected increase in the ratio of jobs to employed residents in El Dorado County indicates that although the relationship between jobs and housing in the County is improving, the County will continue to be a net exporter of labor to surrounding areas (El Dorado County 1996a).

As shown in Table 4.4-4, the unincorporated areas of the County have fewer jobs relative to employed residents than the two incorporated areas in the County (Placerville and South Lake Tahoe). This condition is typical of most counties in the region because urban centers tend to be employment centers. However, the jobs/housing balance is expected to improve in unincorporated areas, because the El

Dorado County General Plan Land Use Map allows for more employment opportunities to locate in the unincorporated areas (El Dorado County 1996a).

TABLE 4.4-4
SUMMARY OF COUNTY JOBS/HOUSING BALANCE

Market Area	1990 Ratio of Jobs to Employed Residents	Incremental Population Growth	Incremental Household Growth	Est. Employed Residents [1]	Projected Employment 1990-2010 [2]	Potential Out-Commuters	Incremental Jobs Per Employed Resident	2010 Jobs per Employed Resident
Placerville	1.06	913	400	511	344	167	0.67	1.54
South Lake Tahoe	1.06	6,448	2,828	3,619	2,436	1,183	0.67	0.65
Unincorporated Area of the County	0.41	86,639	30,772	39,388	32,748	6,640	0.83	0.57
Total County	0.59	94,000	34,000	43,520	35,537	7,989	0.82	0.64

1 Assumes an employed residents per household factor of 1.28.
2 Assumes a total jobs per capita ratio of 0.38.

Source: El Dorado County 1996a

EL DORADO COUNTY GENERAL PLAN

The El Dorado County General Plan provides objectives and policies related to population, employment, and socioeconomics in the Land Use and Housing Elements. The Land Use Element is discussed in the Land Use section (Section 4.2) of this EIR. The Housing Element contains the following relevant policies:

Policy 4.1.1.3 - Specific plans need to address and provide for affordable housing.

Policy 4.2.3.1 - Use of the Planned Development (-PD) combining zone district shall be promoted to allow greater flexibility in development standards to encourage developers to include low and moderate income housing within residential developments.

Policy 4.2.4.1 - Boundaries delineating the location of Planned Communities (-PC) shall be shown on the General Plan Land Use Map. It is intended that these -PC areas will contain a variety of high-intensity residential uses and housing types. Planned Communities shall be planned and developed through the specific plan process to ensure a variety of housing types and mixed uses.

4.4.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

A project is considered to have a significant impact on population, employment or housing if the projected population, employment or housing impacts associated with the project are substantially different than existing population, employment or housing, or are inconsistent with applicable County population, employment or housing projections. A project is also considered to have a significant impact on employment and housing if a project results in a substantial increase in employed residents compared to jobs, thus resulting in a further imbalance of jobs to employed residents within the County.

IMPACTS

> IMPACT 4.4-1: POPULATION. DEVELOPMENT OF THE PROPOSED PROJECT WOULD INCREASE HOUSEHOLD POPULATION BY UP TO APPROXIMATELY 7,565. THIS PROJECTED POPULATION INCREASE DOES NOT REPRESENT A SUBSTANTIAL DEVIATION FROM COUNTY PROJECTIONS. THEREFORE, THIS IMPACT IS CONSIDERED LESS THAN SIGNIFICANT.

Buildout of the Specific Plan would result in the addition of approximately 7,565 persons, based on the construction of up to 2,701 housing units with an average of 2.8 persons per household. (The total number of residential units on the project site would be reduced by up to 154 units with the establishment of school facilities on the residentially-designated elementary and middle school sites (R(5) and R(18)). The proposed Specific Plan would represent an approximately 8% increase in the 1990 population in the unincorporated areas of El Dorado County. This population increase represents a portion of the anticipated increase within the unincorporated areas of El Dorado County. Based on County projections, the unincorporated areas would increase in population by approximately 42% and 91% in the years 2000 and 2010, respectively compared to the 1990 population. The population increase from the proposed Specific Plan does not represent a substantial deviation from County projections. Therefore, this impact is considered less than significant.

> IMPACT 4.4-2: SHORT-TERM CONSTRUCTION EMPLOYMENT. CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROPOSED SPECIFIC PLAN COULD RESULT IN APPROXIMATELY 200 EMPLOYEES AT ANY GIVEN TIME DURING THE ESTIMATED 15-YEAR CONSTRUCTION PERIOD. THIS INCREASE IN CONSTRUCTION JOBS WOULD IMPROVE THE EXISTING JOB-HOUSING RATIO IN UNINCORPORATED AREAS OF EL DORADO COUNTY. THIS IMPACT WOULD BE CONSIDERED BENEFICIAL AND THEREFORE, LESS THAN SIGNIFICANT.

Buildout of the Specific Plan would result in the construction of up to 2,701 residential units, 13.8 acres (240,000 square feet) of commercial uses, up to 48.4 acres (843,000 square feet) of research and development uses, potentially up to 2 schools and 31.2 acres of public park. Project construction is projected to occur over an estimated 15 years with buildout occurring around year 2012. Assuming that 20% of the Specific Plan land uses would be under construction at any given time during project construction, approximately 200 construction employees would be required during the project construction period. This increase in construction jobs is expected to improve the jobs-to-housing ratio in unincorporated areas of El Dorado County. This impact would be considered beneficial, and therefore, less than significant.

IMPACT 4.4-3; LONG-TERM PERMANENT EMPLOYMENT. IMPLEMENTATION OF THE PROPOSED SPECIFIC PLAN WOULD RESULT IN THE GENERATION OF APPROXIMATELY 3,972 JOBS COMPARED TO APPROXIMATELY 2,917 EMPLOYED RESIDENTS. SINCE THE PROPOSED SPECIFIC PLAN WOULD GENERATE MORE JOBS THAN EMPLOYED RESIDENTS, THE PROJECT WOULD IMPROVE THE JOBS-TO-HOUSING RATIO IN UNINCORPORATED WESTERN EL DORADO COUNTY. THEREFORE, THE PROJECT IMPACT ON EMPLOYEES AND THE JOBS-TO-HOUSING RATIO IS CONSIDERED LESS THAN SIGNIFICANT.

The proposed Specific Plan would result in the generation of up to approximately 3,972 additional jobs in El Dorado County. A breakdown of employment by land use is presented in Table 4.4-5. Research and development land uses would account for the majority of the jobs projected at buildout. Although not presented in Table 4.4-5, school, public park, and open space uses are anticipated to generate additional employment as well.

TABLE 4.4-5
PROJECTED EMPLOYMENT BY LAND USE
CARSON CREEK SPECIFIC PLAN

Land Use	Area (sq ft)	Employment Generation Factor (sq ft per employee)	Projected Employment
Local Commercial	240,000	400	600
Research and Development	843,000	250	3,372
Total Employment			3,972

sq ft = square feet

Source: Economic and Planning Systems, Inc., 1995; Michael Brandman Associates 1995

The employees generated by the proposed commercial and research and development land uses would primarily reside in western El Dorado County. A portion of the employees are anticipated to reside in the Specific Plan area. Moreover, some employees would consist of County residents who had formerly commuted to jobs in Sacramento County.

In 1990, there were 66,500 employed residents within El Dorado County and 61,451 housing units in the County (El Dorado County 1996a). This represented 1.08 employed residents per housing unit. Based on the 1.08 ratio, the development of the proposed Specific Plan would generate approximately 2,917 employed residents. Since the proposed Specific Plan would generate more jobs (approximately 3,972) than employed residents, the Specific Plan would improve the jobs-to-housing ratio in unincorporated western El Dorado County. Therefore, the project's impact on employees and the jobs-to-housing ratio is considered less than significant.

> IMPACT 4.4-4: HOUSING. IMPLEMENTATION OF THE PROPOSED SPECIFIC PLAN WOULD RESULT IN THE INCREASE OF UP TO 2,701 HOUSING UNITS. THIS INCREASE IS EXPECTED TO IMPROVE HOUSING AFFORDABILITY IN THE EL DORADO HILLS AREA. IN ADDITION, THIS INCREASE DOES NOT REPRESENT A SUBSTANTIAL DEVIATION FROM COUNTY HOUSING PROJECTIONS IN UNINCORPORATED AREAS. THEREFORE, HOUSING IMPACTS ARE CONSIDERED LESS-THAN-SIGNIFICANT.

Buildout of the Specific Plan would result in the construction of 2,701 housing units. The total number of residential units onsite would be reduced by up to 154 units with the establishment of school facilities on the residentially-designated school sites (R(5) and R(18)). The Specific Plan would allow five types of residential development: single-family detached (standard lot), single-family detached (small lot), single-family attached (duplex), single-family attached (3- to 8-plex), and apartment. The Specific Plan would allow for the potential construction of duplexes, multi-plexes, and apartments on approximately 290.9 (62%), at a maximum, of the 470.4 acres designated for residential uses. Accordingly, the housing affordability in the El Dorado Hills area is expected to be improved with buildout of the Specific Plan. The project's impact on housing affordability would be considered less than significant.

The increase in housing from implementation of the proposed Specific Plan represents an approximately 7% increase in the 1990 housing units in the unincorporated areas of El Dorado County. This increase in housing units represents a portion of the anticipated increase within the unincorporated areas. Based on County projections, the unincorporated areas would increase in housing units by approximately 68% in the year 2010 compared to the number of housing units in 1990. As shown in Table 4.4-3, the implied housing starts per year from 1990 to 2010 in the unincorporated areas is approximately 1,539. Based on an anticipated Specific Plan buildout of approximately 15 years and on an assumption that similar number of housing units are constructed each year within the Specific Plan area, the proposed Specific Plan would construct approximately 180 units per year, which represent approximately 11.7% of the

anticipated annual housing increase in the unincorporated areas. This increase in housing units does not represent a substantial deviation from County housing projections in unincorporated areas. Therefore, this impact is considered less than significant.

IMPACT 4.4-5: GENERAL PLAN CONSISTENCY - AVAILABILITY AND AFFORDABILITY OF HOUSING. THE PROPOSED SPECIFIC PLAN WOULD PROVIDE APPROXIMATELY 2,701 HOUSING UNITS ON THE PROJECT SITE AND WOULD ALLOW CONSTRUCTION OF SMALL LOT SINGLE-FAMILY HOMES, DUPLEXES, MULTI-PLEXES, AND APARTMENTS. THE PROVISION OF THESE TYPES OF UNITS WOULD INCREASE AVAILABILITY AND AFFORDABILITY OF HOUSING IN THE COUNTY. THIS WOULD BE CONSIDERED A LESS THAN SIGNIFICANT IMPACT.

General Plan Policies 4.1.1.2, 4.2.3.1, and 4.2.4.1 are geared toward increasing the availability and affordability of housing in the County. The Specific Plan would allow the construction of small lot single-family homes, duplexes, multi-plexes, and apartments. The provision of these types of units would increase the availability and affordability of housing in the County and would be consistent with the General Plan policies. This would be considered a less than significant impact.

4.4.3 MITIGATION MEASURES

No mitigation measures are necessary.

4.4.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project impacts on population, employment and housing would be less than significant.

4.5 TRAFFIC AND CIRCULATION

This section contains the transportation setting, impacts, and mitigation measures associated with implementation of the proposed project. Section 4.5.1 contains the environmental setting information, which describes the existing characteristics of the transportation system in the vicinity of the proposed project. The existing condition of roadways and intersections in the project vicinity required evaluation of factors such as number of lanes, intersection controls, and traffic levels. Since physical changes to the environment that are caused by the project constitute an impact, the setting information provides a context for reviewers to consider the significance of potential impacts identified in Section 4.5.2. Mitigation measures are identified for any significant impacts and are described in Section 4.5.3 followed by a discussion of impact significance after mitigation in Section 4.5.4.

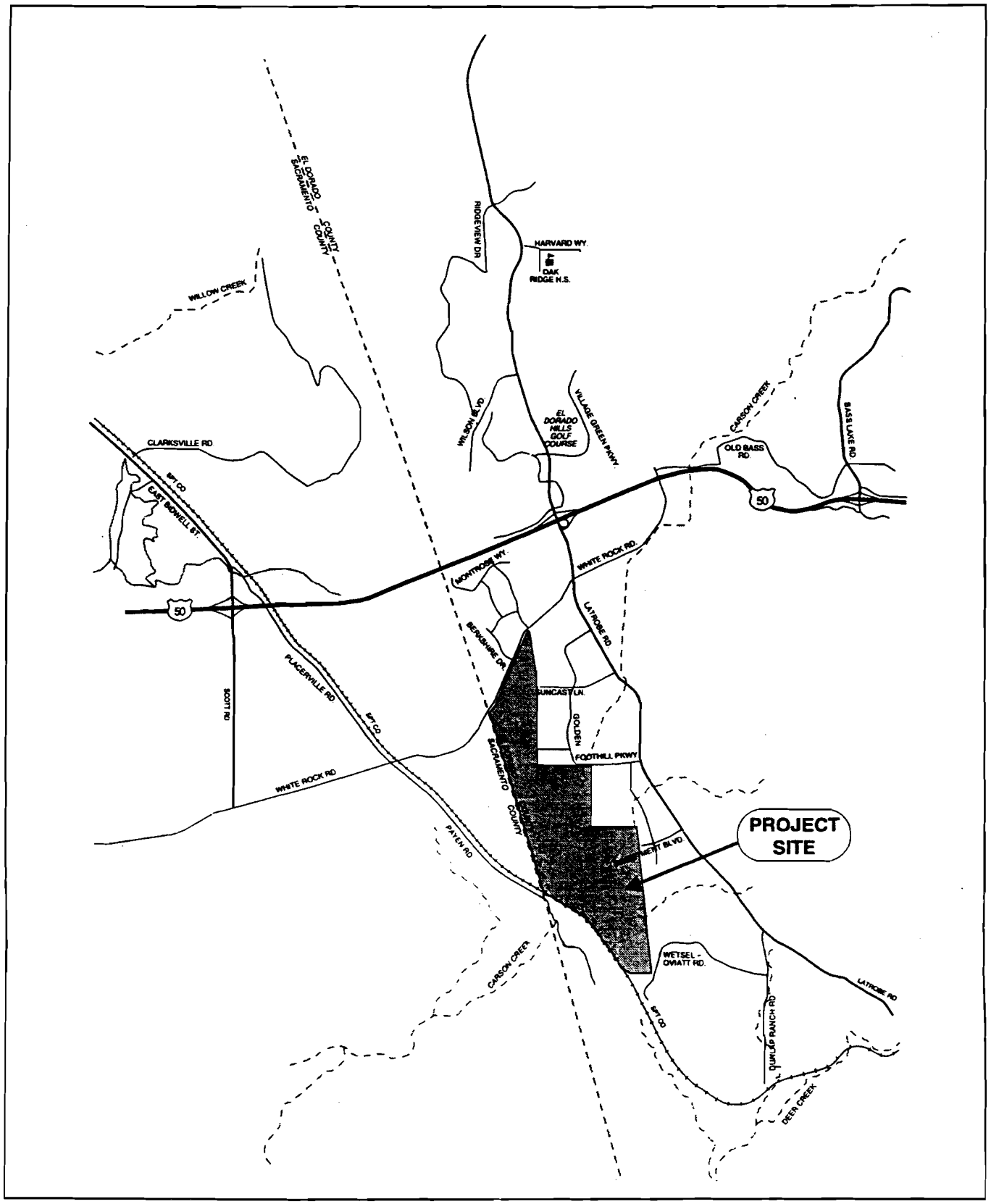
4.5.1 ENVIRONMENTAL SETTING

The project site is located south of U.S. Highway 50 between Latrobe Road on the east and the Sacramento County line on the west. The site is about 25 miles east of the City of Sacramento and about 18 miles west of Placerville. Regional access to the project site is provided from the El Dorado Hills Boulevard interchange with U.S. Highway 50. Local roads provide access from Latrobe Road and White Rock Road (Exhibit 4.5-1).

The Notice of Preparation (NOP) and responses received during the environmental scoping process identified the following issues to be addressed in the transportation impact analysis:

- Local street and intersection operations;
- U.S. Highway 50 operations in the vicinity of the El Dorado Hills Boulevard and Silva Valley Road interchanges;
- traffic volume "triggers" for improvement phasing;
- changes to the County's Capital Improvement Program (CIP) funding schedule required to accommodate project-related traffic;
- transit circulation; and
- pedestrian and bicycle circulation.

The transportation impact analysis addresses each of these issues beginning with the following background information about the existing transportation system in the vicinity of the proposed project.



Source: Fehr & Peers Associates, Inc., 1995.

Regional Access

EXHIBIT 4.5-1

CARSON CREEK SPECIFIC PLAN

Not To Scale

NORTH

EXISTING TRANSPORTATION SYSTEM

El Dorado County's transportation system in the project area depends heavily on the roadway system for the movement of goods and people. Automobiles are used as the primary travel mode for most trips in this area although bus transit, and to a lesser degree, walking or bicycling are also used. Recent travel survey data, contained in Table 4.5-1, shows that about 90% of all trips in western El Dorado County are made by automobile. This is consistent with the automobile mode share of about 90% for the entire survey area, which included Sacramento County, Sutter County, Yolo County, Yuba County, and the western portions of El Dorado and Placer counties.

TABLE 4.5-1
WESTERN EL DORADO COUNTY TRAVEL MODE CHARACTERISTICS

TRAVEL MODE	WORK TRIPS (% using each mode)	NON-WORK TRIPS (% using each mode)	TOTAL TRIPS (% using each mode)
Automobile	97.10	88.80	90.32
Public Transit (Bus)	0.5	0.5	0.53
Bicycle	0.2	0.5	0.43
Walk	1.6	4.5	3.95
Other	0.7	5.7	4.77
Total [1]	100.10	100.00	100.00

[1] Totals may not add to 100% due to rounding.

Source: Sacramento Area Council of Governments Household Travel Survey: Report #1, December 1992

Roadway System

Since most trips in El Dorado County are made by automobiles, the roadway system is the primary focus for the analysis of the proposed Specific Plan. Table 4.5-2 contains existing characteristics of the major roadways in the project vicinity.

As shown in Exhibit 4.5-1, Latrobe Road and White Rock are the primary roadways providing access to the project site. Latrobe Road provides direct access to U.S. Highway 50, while White Rock Road provides a parallel route to U.S. Highway 50. General descriptions of each roadway are provided below.

TABLE 4.5-2
EXISTING ROADWAY CHARACTERISTICS

ROADWAY	FROM/TO	LANES	AVERAGE DAILY TRAFFIC
U.S. Highway 50	West of El Dorado Hills Boulevard	4	48,500
	East of El Dorado Hills Boulevard	4	46,000
El Dorado Hills Blvd	U.S. Highway 50 to Park Drive	4-5	15,760
Latrobe Road	White Rock Road to U.S. Highway 50	2	7,784
	Golden Foothill Parkway North to White Rock Road	2	6,831
	Investment Blvd to Golden Foothill Parkway North	2	6,247
	South of Investment Blvd	2	1,749
White Rock Road	Latrobe Road to Silva Valley Road	2	1,010
	West of Latrobe Road	2	1,850

Sources: *El Dorado County General Plan, 1996; Caltrans 1993 Traffic Volumes on the California State Highway System, July 1994; Fehr & Peers Associates, Inc. 1994.*

- U.S. Highway 50 - This four-lane highway is the primary transportation corridor in El Dorado County. It traverses the County east to west and connects most of the urbanized communities in the County. This facility serves commute traffic, interregional traffic, and local traffic in those areas of the County where parallel local roads are not available due to topography or other constraints. An important characteristic of U.S. Highway 50 in El Dorado County that affects its capacity is the number of locations with steep grades that affect traffic speed and pose physical constraints to increasing the number of lanes.
- Latrobe Road is a two-lane north/south arterial that extends south from U.S. Highway 50 past the El Dorado Hills Business Park and the Wetsel-Oviatt Lumber Mill and connecting to State Route 16. Latrobe Road currently carries about 6,800 to 7,800 vehicles per day (vpd) south of U.S. Highway 50.
- White Rock Road is a two-lane east/west roadway that extends from Silva Valley Road just east of Latrobe Road in El Dorado County, to Mather Air Force Base in Sacramento County; it parallels U.S. Highway 50. Existing daily traffic volumes near the intersection with Latrobe Road range from 1,000 to 1,900 vehicles.
- El Dorado Hills Boulevard is a major north/south arterial that connects U.S. Highway 50 and Green Valley Road with the El Dorado Hills community. Most of the road is four lanes with a five-lane section near U.S. Highway 50 and carries about 15,800 vehicles per day just north of the interchange with U.S. Highway 50.

Intersections of the major roadways are a key component of the roadway system. These are the "nodes" that connect and interconnect all individual roadway segments of the system. Intersections are usually the critical elements of a roadway system in assuring adequate travel capacity, minimizing delays, maximizing safety, and minimizing environmental impacts (Institute of Transportation Engineers 1992). The degree to which the roadway system operates is a function of the geometric design and operational adequacy of individual roadway segments and their intersections.

To measure existing operating conditions of the roadway system, both existing roadway segments and intersections were reviewed. The specific analysis procedures rely on qualitative levels of service (LOS) to describe the operating performance of the analysis locations. Service levels vary qualitatively from "A" (the best) to "F" (the worst). Table 4.5-3 relates the LOS letter designation to a general description of traffic operations.

TABLE 4.5-3
LEVEL OF SERVICE DESCRIPTION

LOS	DESCRIPTION
A	Represent free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.
B	Stable flow, but the presence of other users in the traffic stream begins to be noticeable.
C	Stable flow, but marks the beginning of the range of flow in which that operation of individual users becomes significantly affected by interactions with others in the traffic stream.
D	Represents high-density, but stable flow.
E	Represents operating conditions at or near the capacity level.
F	Represents forced or breakdown flow.

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board 1985

For the purposes of determining existing service levels, roadway segments were analyzed by comparing average daily traffic volumes to capacity thresholds that were developed for the El Dorado County General Plan. The thresholds are based on the number of travel lanes and whether or not the roadway segment is divided by a median. In a similar fashion, service level thresholds were also developed for U.S. Highway 50. Table 4.5-4 displays the thresholds for this traffic and circulation section.

TABLE 4.5-4
ROADWAY SEGMENT SERVICE LEVEL CRITERIA [1]

ROADWAY SEGMENT CLASSIFICATION	LOS A	LOS B	LOS C	LOS D	LOS E
2-Lane Undivided Roadway [2]	2,180	5,050	8,650	14,630	24,380
4-Lane Undivided Roadway	15,000	17,500	20,000	22,500	25,000
4-Lane Divided Roadway	22,500	26,250	30,000	33,750	37,500
6-Lane Divided Roadway	33,750	39,380	45,000	50,630	56,250
4-Lane Freeway	26,000	32,400	46,200	55,800	60,000
6-Lane Freeway	36,500	48,600	69,300	83,700	90,000

[1] Service level thresholds are based on average daily traffic (ADT) volumes in vehicles per day.
[2] Criteria applicable to existing Latrobe Road. LOS A through E criteria for existing White Rock Road are 720, 1,910, 3,520, 5,280, and 12,580 vpd west of Latrobe Road and 1,140, 2,260, 3,670, 5,930, and 12,870 vpd east of Latrobe Road (Porter 1995).

LOS = level of service

Source: El Dorado County Department of Transportation, September 1994; Fehr & Peers Associates, Inc. 1995

Unsignalized and signalized intersections were analyzed to determine existing service levels using the methodology described in the *Highway Capacity Manual, Special Report 209* (Transportation Research Board 1985). Tables A-1 through A-3 in Appendix B contain the specific intersection service level criteria, which are based on the type of traffic control device used to assign right-of-way at the intersection.

The specific roadway segments and intersections selected for service level analysis for the Carson Creek Specific Plan were identified by the El Dorado County Department of Transportation. Selected locations include:

Roadway Segments

- U.S. Highway 50
- El Dorado Hills Boulevard
- Latrobe Road
- White Rock Road
- Payen Road

Intersections

- U.S. Highway 50 eastbound ramps/Latrobe Road
- U.S. Highway 50 westbound ramps/El Dorado Hills Boulevard
- Latrobe Road/White Rock Road
- Payen Road/White Rock Road
- Latrobe Road/Golden Foothills Parkway (North and South)
- Latrobe Road/Investment Boulevard
- Latrobe Road/Wetsel-Oviatt Road

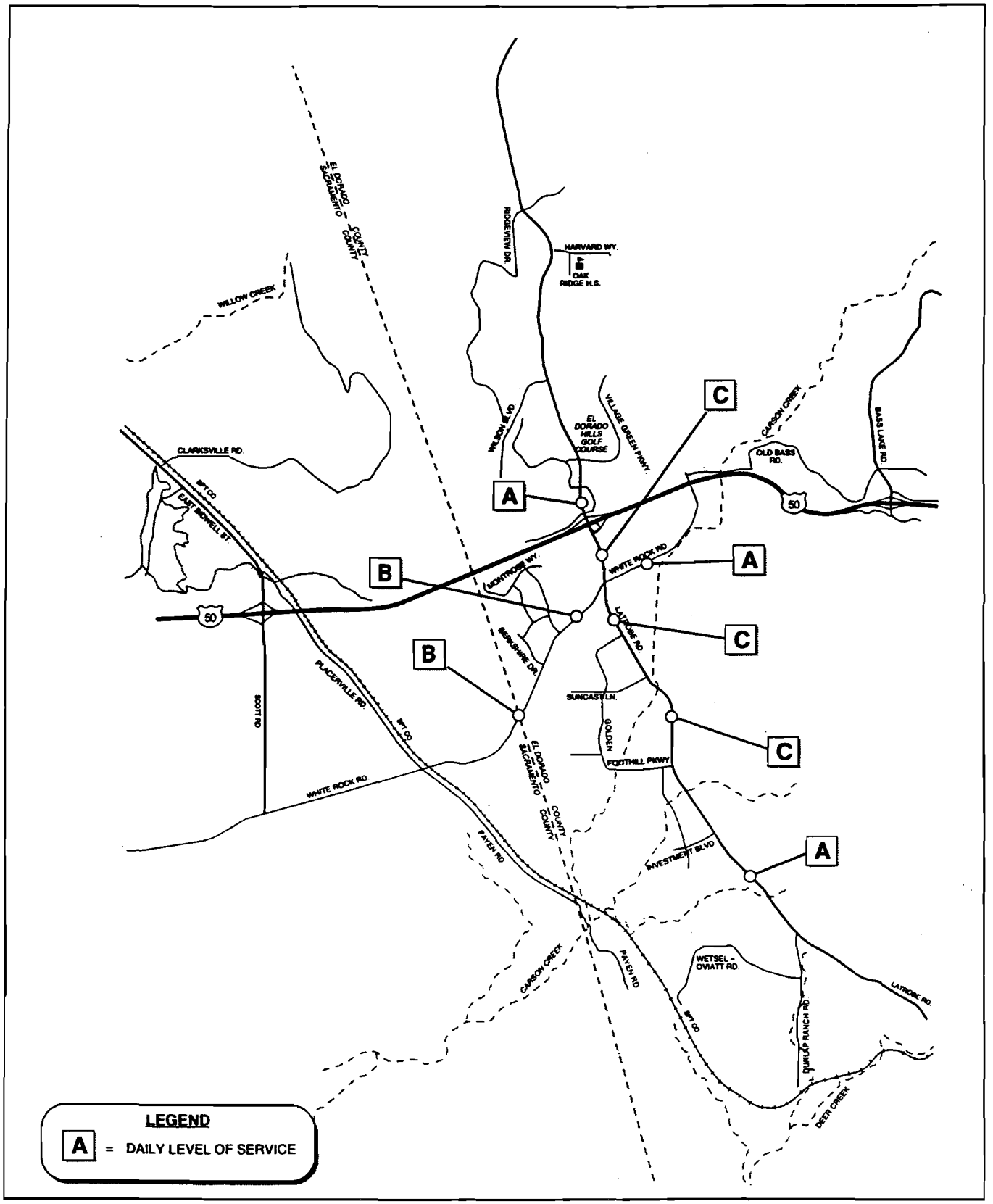
In addition to the roadway segments and intersections listed above, this traffic and circulation component of the EIR includes evaluation of traffic operations on U.S. Highway 50 at the junction of the on- and off-ramps with the freeway mainline.

Exhibit 4.5-2 displays the existing daily roadway segment levels of service. These service levels were determined by comparing existing daily traffic volumes to the level of service criteria in Table 4.5-4 above. All eight analysis locations currently experience LOS C or better conditions on a daily basis.

Existing turning movements and peak hour traffic counts for each intersection and for the ramp junctions of the El Dorado Hills Boulevard interchange are included in Appendix B (traffic counts were conducted on December 1, 1994). The traffic counts were used to calculate existing a.m. and p.m. peak hour intersection and ramp junction levels of service, which are shown in Table 4.5-5.

The peak hour analysis results show relatively poor levels of service (LOS F) for the Latrobe Road/U.S. Highway 50 eastbound ramps intersection, the Latrobe Road/Golden Foothill Parkway North intersection, and U.S. Highway 50 merge and diverge movements. All other intersections currently operate within the County's service level standard of E or better. The Latrobe Road/U.S. Highway 50 eastbound ramps, the Latrobe Road/Golden Foothills Parkway North, and the Latrobe Road/White Rock Road intersections warrant the installation of traffic signals based on peak hour volumes at these locations.

At the U.S. Highway 50 interchange, both eastbound ramps operate at LOS F during the p.m. peak hour while the westbound on-ramp operates at LOS F during the a.m. peak hour. This is characteristic of the existing heavy peak commute demand to and from the Sacramento area. To address existing and future transportation needs in the U.S. U.S. Highway 50 corridor, El Dorado County recently completed a joint study with the City of Folsom and Caltrans District 3. The study focuses on mainline and interchange improvements that will be necessary to accommodate the growing travel demand in the corridor. In



Source: Fehr & Peers Associates, Inc., 1995.

Existing Daily Roadway Segment Levels of Service

EXHIBIT 4.5-2

CARSON CREEK SPECIFIC PLAN

Not To Scale

NORTH

TABLE 4.5-5
EXISTING A.M. AND P.M. PEAK HOUR INTERSECTION AND RAMP JUNCTION LEVELS OF SERVICE

ANALYSIS LOCATION	Peak Hour Level of Service [1]	
	A.M.	P.M.
El Dorado Hills Blvd/U.S. Highway 50 Westbound Ramps	C	B
Latrobe Road/U.S. Highway 50 Eastbound Ramps	D	**F**
Latrobe Road/White Rock Road	A	D
Latrobe Road/Golden Foothills Parkway North	E	**F**
Latrobe Road/Golden Foothills Parkway South	B	D
Latrobe Road/Investment Boulevard	A	B
Latrobe Road/Wetsel-Oviatt Road	A	A
White Rock Road/Placerville Road/Payen Road	A	A
U.S. Highway 50 with El Dorado Hills Boulevard/Latrobe Road Westbound Off-Ramp Diverge	E	B
U.S. Highway 50 with El Dorado Hills Boulevard/Latrobe Road Westbound On-Ramp Merge	**F**	B
U.S. Highway 50 with El Dorado Hills Boulevard/Latrobe Road Eastbound Off-Ramp Diverge	B	**F**
U.S. Highway 50 with El Dorado Hills Boulevard/Latrobe Road Eastbound On-Ramp Merge	B	**F**

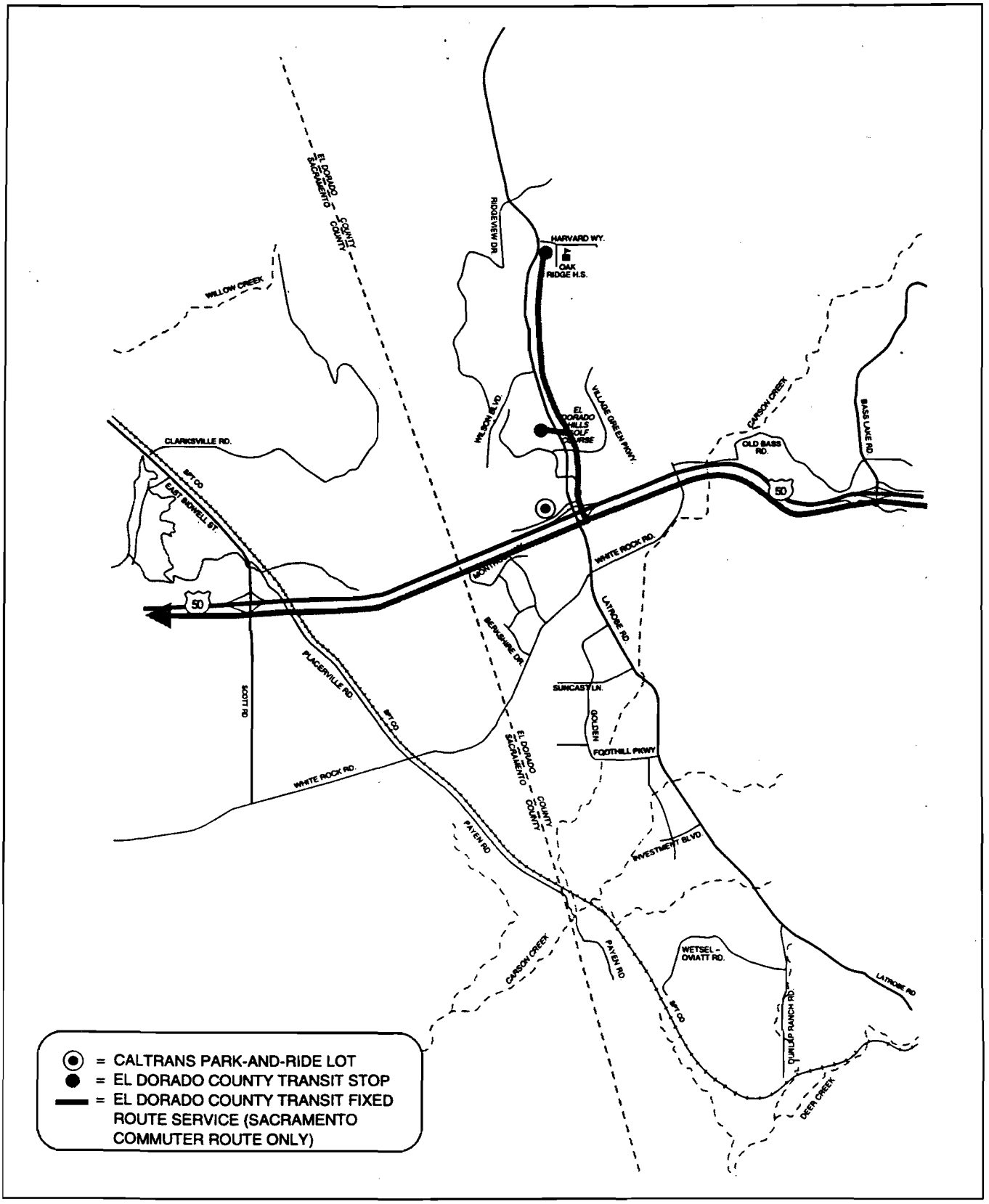
[1] **Shaded cells with bold text denote locations that exceed El Dorado County's LOS E standard.**

Source: Fehr & Peers Associates, Inc. 1995

addition, El Dorado County through the El Dorado Hills Road Improvement Fund (RIF), is already collecting development impact fees to fund the reconstruction of the El Dorado Hills Boulevard interchange and to construct a new interchange at Silva Valley Road.

Existing Transit System

El Dorado County's transit system consists of fixed-route bus service, dial-a-ride bus service, commercial bus service, taxi service, van pools, car pools, and park-and-ride facilities. Public transit service is



Source: Fehr & Peers Associates, Inc., 1995.

Existing Transit Routes and Facilities

EXHIBIT 4.5-3

Not To Scale

NORTH

provided by the El Dorado County Transit Authority (EDCTA). EDCTA is responsible for scheduled fixed-route service, daily commute service to Sacramento, and dial-a-ride service in Placerville and outlying communities, as well as chartered social service routes. Current fixed-route service and park-and-ride lots within the transportation study area for this project are shown on Exhibit 4.5-3. Specific route information for EDCTA is listed in Table 4.5-6.

TABLE 4.5-6
EL DORADO TRANSIT AUTHORITY ROUTE INFORMATION

SERVICE TYPE	ROUTE LOCATION	Trips per Weekday (Each Way)	Days of Service
Fixed Route	Placerville Area Shuttle Service	22	Mon-Sat [1]
	Placerville - Diamond Springs - El Dorado -Shingle Springs - Cameron Park	10	Mon-Fri
	Placerville - Camino - Pollock Pines	14	Mon-Sat [1]
	Placerville - Sacramento Commute	14	Mon-Fri
Dial-A-Ride	Zone 1 - within 15 min of Placerville	Varies	Mon-Fri
	Zone 2 - 15 to 30 min from Placerville	Varies	Mon-Fri
	Zone 3 - more than 30 min from Placerville	Varies	Mon-Fri

[1] Fewer trips and stops are provided on Saturdays.

Source: El Dorado County, El Dorado County General Plan Update Draft Environmental Impact Report, December 1994.

As indicated in Exhibit 4.5-3, only one public transit service route, the Sacramento Commuter Route, operates in the project area. Passengers board at the Baptist church just north of the U.S. Highway 50 interchange with El Dorado Hills Boulevard. At least one of the four fixed commuter routes operating in El Dorado County also stops at the El Dorado Hills Community Services District office further north near Harvard Way. The commuter service does not currently stop at the Caltrans park-and-ride lot at Saratoga Way. This lot is crowded and is not considered a safe or efficient transfer point for the commuter route (Dubost, pers. comm., 1995).

Existing Bicycle and Pedestrian System

According to the *El Dorado County General Plan Update Draft Environmental Impact Report* (December 1994), bicycling and walking have not been widely used as transportation modes in El Dorado County with the exception of students commuting to and from school and recreational travelers. This statement is supported by field observations within the transportation study area that revealed no existing bicycle facilities and little or no bicycle or walking activity in most areas south of U.S. Highway 50.

According to the existing El Dorado County *Bikeway Master Plan*, which was developed in 1979, Class II bike lanes are planned to be provided on Latrobe Road, El Dorado Hills Boulevard and White Rock Road. The current update of the master plan, however, may change the planned bikeway designations on Latrobe Road and White Rock Road to Class I.

The El Dorado County *Hiking and Equestrian Trails Master Plan*, which was developed in 1989 and revised in April 1990, indicates that one trail, the Mormon-Carson National Historic Trail (Mormon-Carson Trail), is proposed in the vicinity of the project site. The proposed alignment of the Mormon-Carson Trail would be parallel to and immediately north of White Rock Road, to the north of the project site.

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

Objective 3.2.1: Concurrency - Ensure that safe and efficient transportation and circulation facilities are provided for concurrently with new development.

Policy 3.2.1.1: Development proposals shall be reviewed to determine if significant traffic impacts or reductions in Level of Service (LOS) per Policy 3.5.1.1 will occur to existing public roads as a result of the proposed project. Project proponents shall be required to make necessary road improvements or to pay a traffic impact mitigation fee (TIM), or some combination of both, to accommodate increases in traffic caused by the proposed project.

Policy 3.2.1.2: Development review shall consider the adequacy of public and private roads for emergency vehicle access and for off-site traffic impacts. Inadequate roads shall be improved through such measures as "area of benefit" districts, fees, project approval conditions, assessment districts or other means.

Policy 3.2.1.3: All developments may be required to either improve street frontage, dedicate land for road right-of-way, provide road improvements, enter into a street improvement agreement, pay fees, provide appropriate mitigation for alternative transportation modes, or provide a combination of the above as may be appropriate for the project.

Policy 3.2.1.4: Where no improvement or other acceptable mitigation measures are proposed to alleviate project induced situations concurrent with development, land development projects shall be denied.

Objective 3.2.2: Equitable Cost Distribution - Distribute the costs for necessary transportation improvements equitably among those who will burden the system and who will benefit from the improvements.

Policy 3.2.2.1: Improvements to the County roadway system will be funded partially through traffic impact fees. Traffic impact fees are to be assessed on new development as a requirement of obtaining a building permit or condition of approval for parcel and subdivision maps or other discretionary applications. To apportion transportation improvement costs to those more directly benefiting from specific improvements, a system of geographic districts will be created within the County. Each district will fund identified local transportation improvements and its proportionate share of transportation infrastructure which is of regional significance. The fees shall be computed using the County's Capital Improvements Program (CIP) costs.

Policy 3.2.2.2: Funding of freeway interchanges shall be addressed through some combination of the following potential mechanisms: special benefit assessment districts, traffic impact fees, local sales tax, additional gas tax revenues from local, State or Federal sources, or other creative financing process.

Objective 3.3.1: Improvement of Interchanges - Improve interchanges along U.S. Highway 50 and the roadway system in the central urban corridor extending from the Sacramento/El Dorado County line to Camino.

Policy 3.5.1.1: The County shall adopt a roadway plan consistent with planned land use and shall maintain an operating Level of Service of "E" or better on all roadways, consistent with Objective 3.5.1. In addition, all road segments projected in the roadway plan at the year 2015 to be operating at LOS A, B, or C shall not be allowed to fall below LOS C and all road segments at LOS D shall not fall below LOS D.

Policy 3.6.2.1: The County should assist in the development of an intermodal facility at a future rail transportation station that can accommodate bus, taxi, bicycle, and other public/private transportation modes. The intermodal facility should ideally be located in the El Dorado Hills area. A Park-N-Ride lot should also be built as part of the intermodal facility.

Policy 3.7.2.1: The County should continue to provide leadership in conjunction with neighboring jurisdictions and transportation providers in both El Dorado and Sacramento Counties to extend rail service to El Dorado County using existing Southern Pacific Railroad right-of-way where feasible.

Objective 3.9.1: Transportation Alternatives - Promote the development of strategies that increase the capacity of the highway system, reduce the level of demand placed on the system, or spread the period of peak demand.

Policy 3.9.1.1: Transportation alternatives that are cost-effective shall be strongly encouraged. A public transit system linking employment, shopping areas, and schools with residential areas should be encouraged.

Policy 3.9.1.4: School and public bus stops and turnouts shall be considered for inclusion into new developments.

Policy 3.9.1.5: Project review shall take into account all forms of transportation and circulation systems, including rail, bicycle trails, pedestrian paths, equestrian easements, off-site, and on-site parking where appropriate.

Policy 3.9.1.6: Prior to or in conjunction with project review and approval and/or development of a commercial, industrial or multifamily project within the Community Regions and Rural Centers, the developer shall cooperate with the County in providing for the construction of pedestrian and bicycle paths (separate or integrated) to allow unimpeded circulation within the entire property being developed.

Policy 3.9.1.7: Planned communities shall be designed to incorporate all of the measures under Goal 3.9 and provide for a greater mixture of land uses in closer proximity to better accommodate for alternative transportation modes.

Policy 3.9.2.3: New development shall be required to install bus turnouts, bus shelters, and other public transportation-related improvements where appropriate.

Policy 3.9.2.4: The County shall maintain a program to install bus turnouts, bus shelters, and other public transportation-related improvements where appropriate.

Policy 3.10.2.2: When reviewing development proposals, ensure that sufficient land and facilities are provided for public transportation purposes.

Policy 3.11.1.1: Where practical and safe, design regional bicycle, hiking, and equestrian routes to connect residential areas with major activity centers (employment, educational, civic, etc.) by requiring as conditions of approval of discretionary projects the dedication of right-of-way and construction in conformance with the County's Bikeway Master Plan and the County's Hiking and Equestrian Trails Master Plan.

Policy 3.11.1.2: Plan bicycle, hiking, and equestrian routes to facilitate access to recreational areas such as regional parks, rivers, and major tourist commercial/recreational facilities.

Policy 3.11.1.3: Plan a bikeway, hiking, and equestrian network to interface with other modes of transportation (train or transit stations and Park-N-Ride lots, etc.) in order to encourage and support the use of non-motorized transportation modes and reduce the use of motor vehicles.

Policy 3.11.2.3: Separate non-motorized from motorized traffic wherever possible, taking into consideration safety, users of the facility, economic factors, and physical feasibility.

Policy 3.11.2.4: Encourage the provision of bicycle racks, showers, lockers, staging areas, and storage facilities at destinations where practical and economically feasible when reviewing discretionary permits for major employment and/or activity centers.

4.5.2 ENVIRONMENTAL IMPACTS

The following transportation impact analysis identifies impacts to the roadway, transit, and pedestrian and bikeway systems (consistent with General Plan Policy 3.9.1.5). In general, the transportation impact analysis determines the effect that project-generated trips would have on the operation and safety of the local transportation system and its users. The first part of the analysis defines an impact according to the California Environmental Quality Act and describes the thresholds for determining when an impact is considered significant. This is an important determination because significant impacts must be mitigated to reduce the level of significance. The second part of the analysis documents the results of project effects and identifies specific project impacts.

THRESHOLDS OF SIGNIFICANCE

For the purposes of this transportation impacts analysis, the criteria listed below were developed to determine significance. The proposed project would result in a significant impact to traffic and circulation if one or more of the following were to occur:

- Roadway System

  Project generated traffic changes the level of service for a roadway segment or intersection from LOS A, B, C, D, or E to LOS F.

  Project generated traffic changes the level of service for a roadway segment or intersection projected in the General Plan roadway plan to be operating at LOS A, B, or C in year 2015 to LOS D, E, or F.

  Project generated traffic changes the level of service for a roadway segment or intersection projected in the General Plan roadway plan to be operating at LOS D in year 2015 to LOS E or F.

  Project generated traffic exacerbates conditions that are already at an unsatisfactory level.

  (Source: Policy 3.5.1.1 of the *El Dorado County General Plan*, Volume I--Goals, Objectives and Policies, Chapter 3 - Circulation. January 1996.)

- Transit System

  Implementation of the project substantially disrupts or interferes with existing or planned transit operations and facilities of the El Dorado County Transit Authority.

  Implementation of the project conflicts with transportation goals, objectives, and policies of the *El Dorado County General Plan*, Volume I--Goals, Objectives and Policies, Chapter 3 - Circulation. January 1996.

- Bicycle and Pedestrian System

  Implementation of the project substantially disrupts or interferes with existing or planned bicycle facilities of the El Dorado County *Bikeway Master Plan*, 1979.

  Implementation of the project conflicts with bicycle and pedestrian related goals, objectives, and policies of the *El Dorado County General Plan*, Volume I--Goals, Objectives and Policies, Chapter 3 - Circulation. January 1996.

  Implementation of the project substantially disrupts or interferes with existing or planned trail facilities of the El Dorado County *Hiking and Equestrian Trails Master Plan*, revised April 1990.

METHODOLOGY FOR IMPACT ANALYSIS

The transportation impact analysis presented here focuses on existing-plus-project conditions. Cumulative transportation impacts are addressed in Section 7.2 of this EIR. Background information about the transportation impact analysis and assumed project characteristics are presented below, followed by the specific project impacts and mitigation measures.

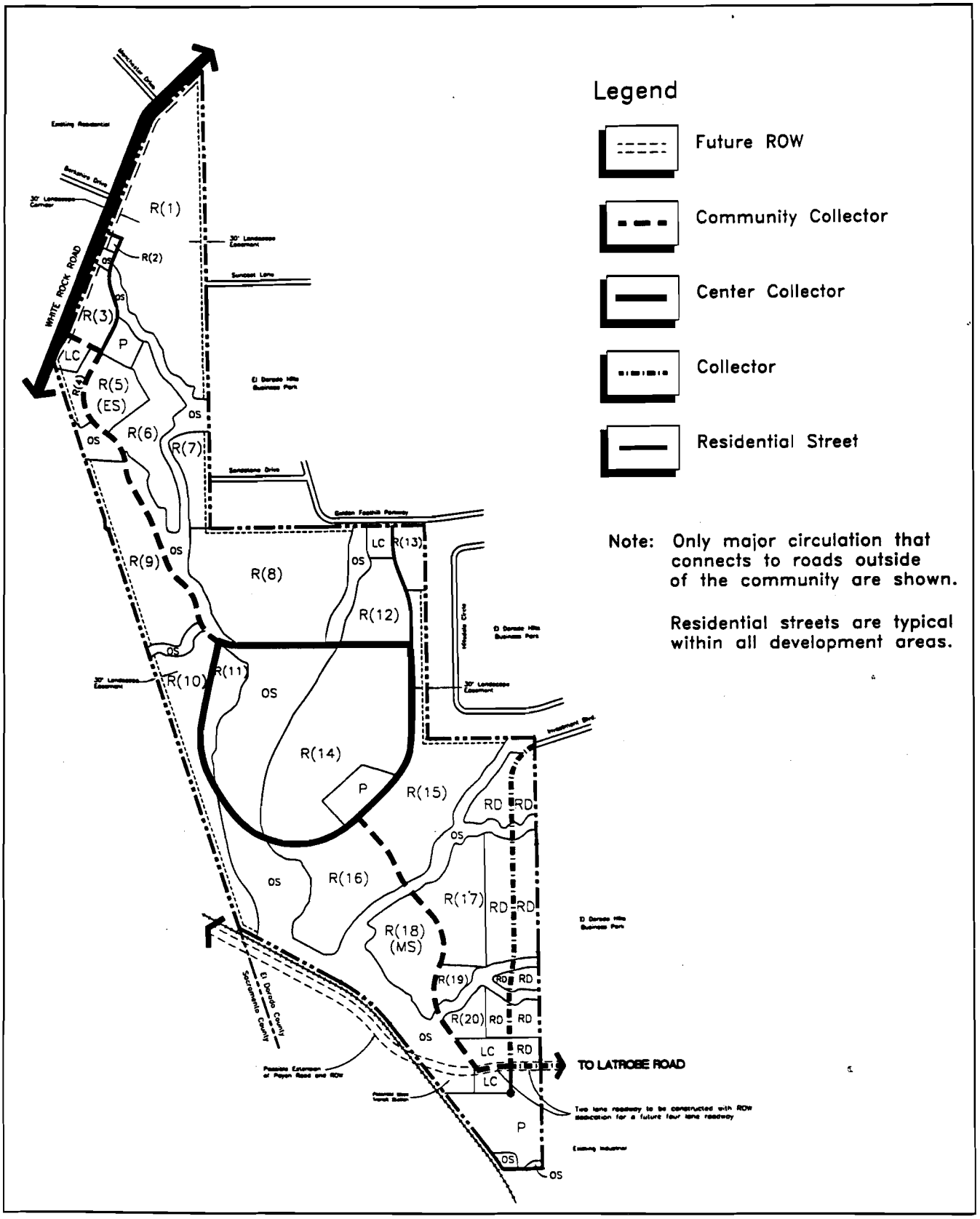
Trip Generation

The amount of traffic generated by the proposed project was determined using trip generation rates published in Trip Generation, Institute of Transportation Engineers (ITE), 5th edition, September 1991. The initial estimate of project-generated trips was adjusted to account for trips that would occur within the project, and not exit onto the existing surrounding street system. These "internalized" trips were estimated using the U.S. Highway 50 Corridor Traffic Model developed by Fehr & Peers Associates, Inc., which is based on the Sacramento Area Council of Governments regional SACMET traffic model. Exhibit 4.5-4 presents the proposed circulation plan for the project site. Table 4.5-7 displays the project trip generation information after adjustment for internalized trips.

Project Traffic Distribution Assumptions

The directional distribution of project traffic onto the surrounding road network is based on the traffic distribution patterns from the El Dorado Countywide Traffic Model. These patterns were reviewed with the El Dorado County Department of Transportation staff prior to beginning traffic and circulation analysis. The resulting directional distribution is shown on Exhibit 4.5-5.

As indicated on the exhibit, traffic distribution under existing conditions is expected to favor areas to the north, i.e., traffic is expected to move predominantly to and from the north. This pattern is expected given the proximity to of U.S. Highway 50 and the rural residential character of the area south of the El Dorado Hills Business Park.



Source: Palisades Development, Inc., 1996.

Project Site Circulation Plan

EXHIBIT 4.5-4

CARSON CREEK SPECIFIC PLAN

Not To Scale

NORTH

TABLE 4.5-7
PROJECT TRIP GENERATION

LAND USE	AMOUNT	TRIPS		
		Daily	AM	PM
SF Residential (1-5 Units/Acre)	689 dwelling units	6,580	510	696
SF Residential (5 - 17 Units/Acre)	1,548 dwelling units	14,629	1,130	1,533
MF Residential (18-20 Units/Acre)	310 dwelling units	1,947	136	152
Research & Development	843,300 square feet	6,493	1,037	902
Elementary School	100,000 square feet [1]	1,072	274	28
Middle School	200,000 square feet [1]	2,144	548	56
Local Convenience Commercial	240,400 square feet	12,361	274	1,156
Park	31.2 acres	93	90	98
Open Space	142.8 acres	n/a	n/a	n/a
Subtotal Trips		45,319	3,999	4,621
Internalization Reduction (15%) [2]		- 6,798	- 600	- 693
Total Net Trips		**38,521**	**3,399**	**3,928**

[1] Converted from acres by assuming 10,000 square feet per acre.
[2] Obtained from U.S. Highway 50 Corridor Study traffic model (an adaptation of the SACMET model).

n/a = Not applicable.
AM and PM peak hour rates are for the peak hour of the adjacent street.

Source: ITE, Trip Generation, 5th Edition, 1991

Project Traffic Assignment Assumptions

The anticipated project trips were manually added to existing traffic counts based on the trip distribution percentages in Exhibit 4.5-5. The resulting volumes were analyzed to determine if the additional traffic would impact existing roadway operations. The existing-plus-project peak hour traffic volumes and turning movements for the study intersections are included in Appendix B. Exhibit 4.5-6 illustrates the change in daily traffic volumes between existing conditions and existing-plus-project conditions.

IMPACTS

Based on the existing-plus-project traffic volumes, service level analysis was performed for the study intersections, ramp junctions and roadway segments (technical calculations are contained in Appendix B). Exhibit 4.5-7 shows the resulting daily roadway segment levels of service, while Table 4.5-8 shows the a.m. and p.m. peak hour intersection and ramp junction levels of service. It is important to note that all analysis locations are subject to the County's LOS E standard.

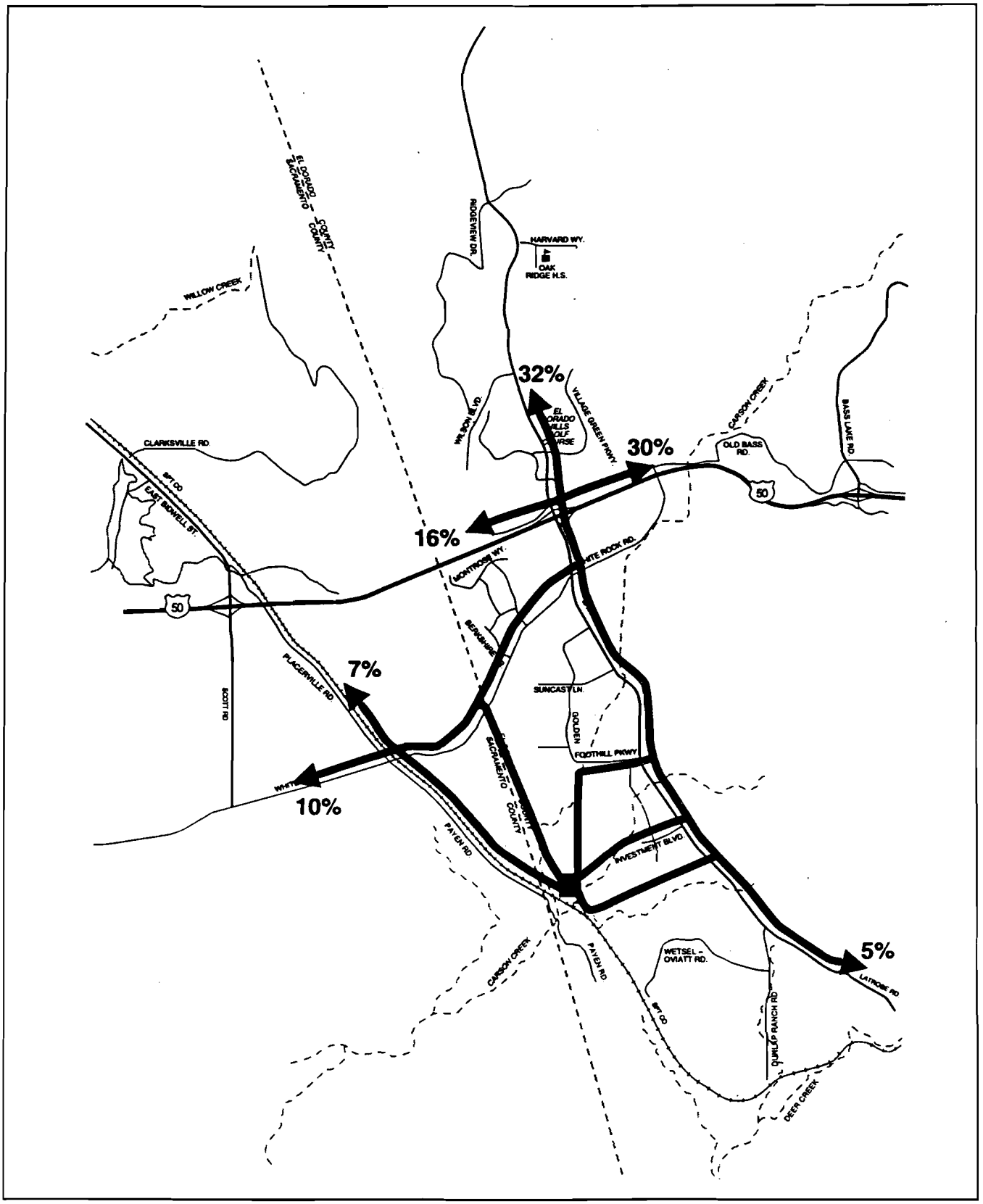
> IMPACT 4.5-1: DAILY TRAFFIC VOLUME (LATROBE ROAD BETWEEN U.S. HIGHWAY 50 AND WHITE ROCK ROAD). BUILDOUT OF THE PROPOSED SPECIFIC PLAN WOULD INCREASE DAILY TRAFFIC VOLUMES ON LATROBE ROAD, RESULTING IN A DETERIORATION OF LOS FROM C TO F BETWEEN U.S. HIGHWAY 50 AND WHITE ROCK ROAD. BECAUSE PROJECTED LEVEL OF SERVICE NORTH OF WHITE ROCK ROAD WOULD EXCEED THE COUNTY'S STANDARD, THIS WOULD BE CONSIDERED A SIGNIFICANT IMPACT.

The addition of Specific Plan-generated traffic on Latrobe Road would increase daily traffic volumes in excess of 350 percent near the interchange with U.S. Highway 50. Traffic operations on this two-lane section of Latrobe Road would deteriorate to LOS F under these conditions.

> IMPACT 4.5-2: DAILY TRAFFIC VOLUME (LATROBE ROAD SOUTH OF WHITE ROCK ROAD). BUILDOUT OF THE PROPOSED SPECIFIC PLAN WOULD INCREASE DAILY TRAFFIC VOLUMES ON LATROBE ROAD SOUTH OF WHITE ROCK ROAD RESULTING IN A DETERIORATION OF LOS FROM C TO E BETWEEN WHITE ROCK ROAD AND INVESTMENT BOULEVARD AND FROM A TO C SOUTH OF INVESTMENT BOULEVARD. BECAUSE THE LOS WOULD NOT EXCEED THE COUNTY'S LOS E STANDARD, THESE IMPACTS WOULD BE CONSIDERED LESS THAN SIGNIFICANT.

The addition of project traffic on Latrobe Road between White Rock Road and Investment Boulevard would incease the daily traffic volume from 6,830 to 23,400. This is a substantial increase, but the daily LOS would still remain within the County's LOS E standard.

Average daily traffic volume on Latrobe Road south of Investment Boulevard is currently 1,750 vehicles per day. Buildout of the Specific Plan would generate an additional 6,050 vehicles per day, bringing the expected total daily traffic level to 7,800 vehicles. This traffic volume increase pushes the daily level of service from A to C, which does not exceed the County's LOS E standard.



Source: Fehr & Peers Associates, Inc., 1995.

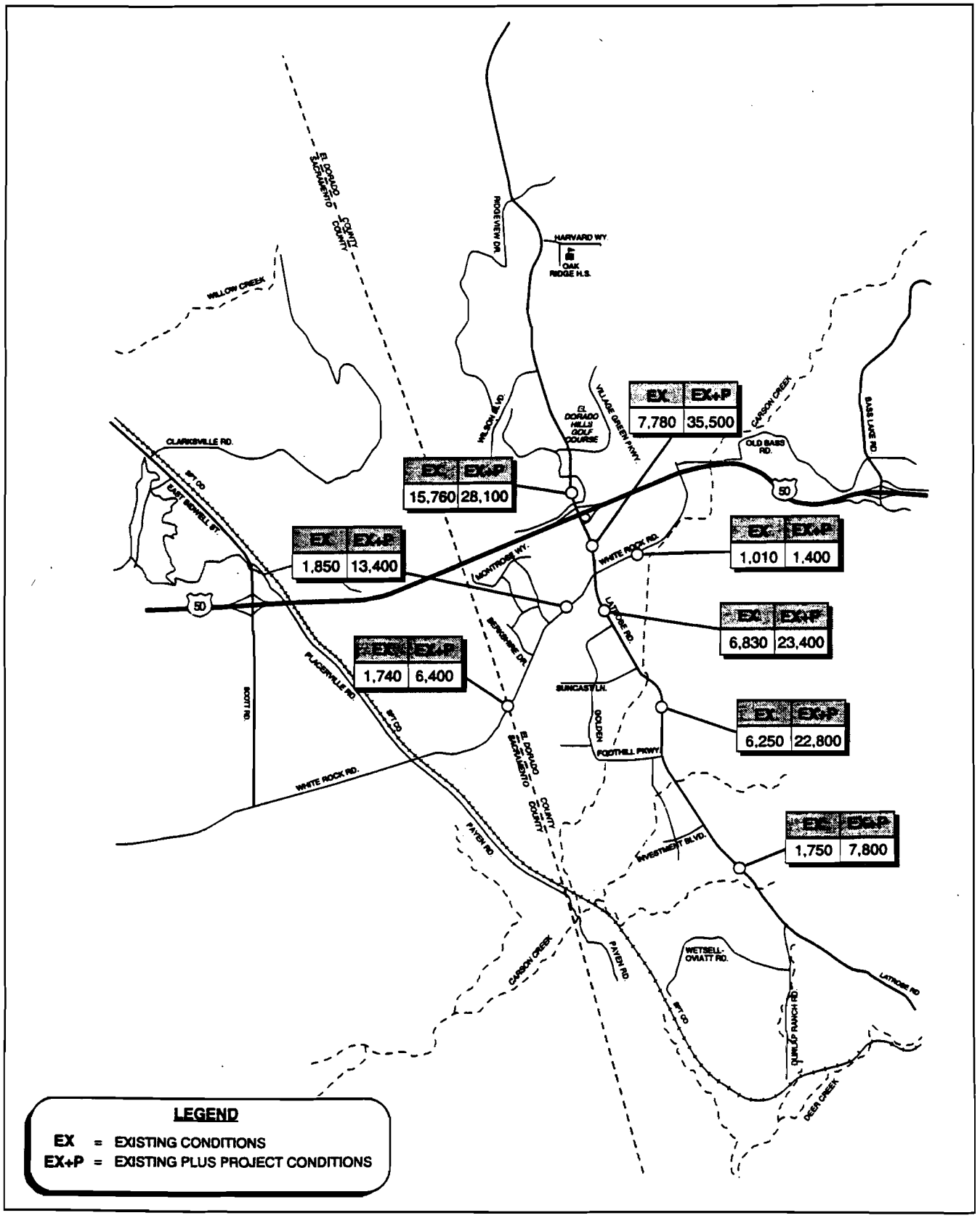
Project Traffic Distribution

EXHIBIT 4.5-5

CARSON CREEK SPECIFIC PLAN

Not To Scale

NORTH



Source: Fehr & Peers Associates, Inc. , 1996.

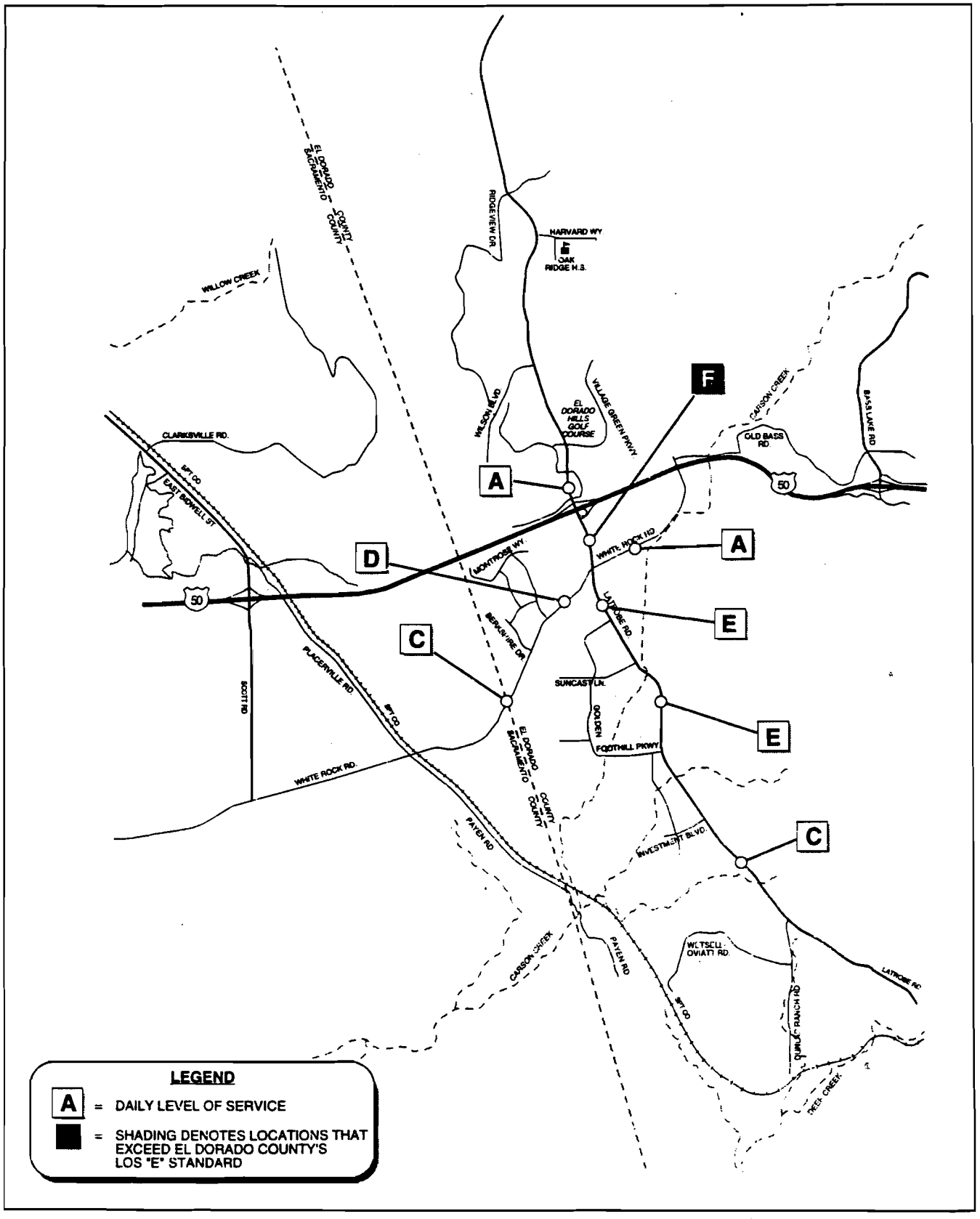
Existing-Plus-Project Daily Traffic Volumes

EXHIBIT 4.5-6

CARSON CREEK SPECIFIC PLAN

Not To Scale

NORTH



Source: Fehr & Peers Associates, Inc., 1996.

Existing-Plus-Project
Daily Roadway Segment Levels of Service

EXHIBIT 4.5-7

Not To Scale

NORTH

TABLE 4.5-8
EXISTING-PLUS-PROJECT A.M. AND P.M. PEAK HOUR INTERSECTION AND RAMP JUNCTION LEVELS OF SERVICE

LOCATION	Peak Hour Level of Service	
	A.M.	P.M.
El Dorado Hills Blvd./U.S. Highway 50 Westbound Ramps	**F**	E
Latrobe Road/U.S. Highway 50 Eastbound Ramps*	**F**	**F**
Latrobe Road/White Rock Road*	**F**	**F**
Latrobe Road/Golden Foothills Parkway North*	**F**	**F**
Latrobe Road/Golden Foothills Parkway South*	**F**	**F**
Latrobe Road/Investment Boulevard*	**F**	**F**
Latrobe Road/Wetsel-Oviatt Road	A	A
Latrobe Road/Payen Road	C	D
White Rock Road/Placerville Road/Payen Road*	**F**	**F**
*White Rock/Road/Project Access Road**	D	**F**
U.S. Highway 50 Westbound Off-Ramp Diverge	**F**	C
U.S. Highway 50 Westbound On-Ramp Merge	**F**	C
U.S. Highway 50 Eastbound Off-Ramp Diverge	B	**F**
U.S. Highway 50 Eastbound On-Ramp Merge	D	**F**

Shaded cells with bold text denote locations that would exceed El Dorado County's LOS E standard with the proposed project.

Italics denote new access intersection to project.

* Denotes intersection meets peak hour signal warrant.

Source: Fehr & Peers Associates, Inc. 1995

IMPACT 4.5-3: DAILY TRAFFIC VOLUME (WHITE ROCK ROAD). BUILDOUT OF THE PROPOSED SPECIFIC PLAN WOULD INCREASE DAILY TRAFFIC VOLUMES ON WHITE ROCK ROAD, RESULTING IN A DETERIORATION OF LOS FROM B TO D BETWEEN LATROBE ROAD AND THE PROPOSED PROJECT ACCESS AND FROM B TO C WEST OF THE PROPOSED PROJECT ACCESS. LESS THAN 400 DAILY TRIPS WOULD ALSO BE ADDED TO WHITE ROCK ROAD EAST OF LATROBE ROAD RESULTING IN CONTINUED LOS A OPERATIONS. BECAUSE THE PROJECTED LOS ALONG WHITE ROCK ROAD WOULD BE E OR BETTER, THESE IMPACTS WOULD BE CONSIDERED LESS-THAN-SIGNIFICANT.

Buildout of the proposed Specific Plan would result in increased traffic volumes along White Rock Road. Traffic volumes between the project access on White Rock Road and Latrobe Road would increase from about 1,850 to 13,400 vehicles per day with buildout of the proposed Specific Plan. This would result in a deterioration of LOS from B to D along this segment of White Rock Road, which would not exceed the County's LOS E standard.

Traffic volumes west of the project access on White Rock Road are projected to increase from 1,740 to 6,400 vehicles per day with buildout. Traffic operating conditions would deteriorate from LOS B to C, which would not exceed the County's LOS E standard. The Sacramento County standard of LOS D for rural collectors would apply to White Rock Road west of the Sacramento County-El Dorado County line (Sacramento County 1993); existing-plus-project traffic volumes along this segment would not exceed Sacramento County's LOS D standard.

> IMPACT 4.5-4: DAILY TRAFFIC VOLUME (EL DORADO HILLS BOULEVARD). BUILDOUT OF THE PROPOSED SPECIFIC PLAN WOULD INCREASE DAILY TRAFFIC VOLUMES ON EL DORADO HILLS BOULEVARD NORTH OF U.S. HIGHWAY 50. BECAUSE ROADWAY LOS WOULD REMAIN AT A, THIS IMPACT WOULD BE CONSIDERED LESS THAN SIGNIFICANT.

Buildout of the proposed Specific Plan is projected to increase daily traffic along El Dorado Hills Boulevard north of U.S. Highway 50 from an estimated 15,760 to 28,100 vehicles per day. Although traffic volumes would increase with the addition of project traffic, the LOS along El Dorado Hills Boulevard would remain at A, which is within the County's standard of LOS E.

> IMPACT 4.5-5: PEAK HOUR TRAFFIC VOLUMES (U.S. HIGHWAY INTERCHANGE). BUILDOUT OF THE PROPOSED SPECIFIC PLAN WOULD INCREASE PEAK HOUR TRAFFIC VOLUMES ALONG U.S. HIGHWAY 50 AT THE EL DORADO HILLS BOULEVARD/LATROBE ROAD INTERCHANGE. BECAUSE ALL FOUR RAMPS ARE PROJECTED TO OPERATE AT LOS F UNDER PEAK HOUR TRAFFIC, THIS WOULD BE CONSIDERED A SIGNIFICANT IMPACT.

The El Dorado Hills Boulevard/Latrobe Road interchange with U.S. Highway 50 would serve as the primary access to the project site from U.S. Highway 50. This interchange consists of two intersections: the northern intersection of El Dorado Hills Boulevard and the westbound on- and off-ramps, and the southern intersection of Latrobe Road and the eastbound on- and off-ramps. At the intersection of El Dorado Hills Boulevard and the westbound ramps, the addition of project traffic would result in a deterioration of LOS from C to F during the a.m. peak hour, and from B to E during the p.m. peak hour.

At the Latrobe Road and eastbound ramps intersection, the project-generated traffic increase would result in a deterioration of LOS from D to F during the a.m. peak hour, and would exacerbate the existing LOS F condition during the p.m. peak hour. The Latrobe Road intersection with the U.S. Highway 50

eastbound ramps is currently stop-controlled and meets the peak hour warrant for signalization. Although signalization would improve operating conditions, it would not accommodate existing-plus-project traffic volumes at an acceptable LOS (E or better).

At the eastbound and westbound on- and off-ramp junctions with U.S. Highway 50, the addition of project traffic would exacerbate existing LOS F conditions during both the a.m. and p.m. peak hours, as shown in Table 4.5-8. El Dorado County is preparing a project study report (PSR) for the design of interchange improvements that will alleviate existing problems and accommodate future traffic levels.

> IMPACT 4.5-6: PEAK HOUR TRAFFIC VOLUMES (LATROBE ROAD INTERSECTIONS). BUILDOUT OF THE PROPOSED SPECIFIC PLAN WOULD INCREASE A.M. AND P.M. PEAK HOUR TRAFFIC VOLUMES ALONG LATROBE ROAD, RESULTING IN LEVELS OF SERVICE THAT EXCEED THE COUNTY'S LOS E STANDARD AT FOUR INTERSECTIONS. THIS WOULD BE CONSIDERED A SIGNIFICANT IMPACT.

As discussed under Impact 4.5-1, buildout of the proposed Specific Plan would generate increased daily traffic volumes along Latrobe Road. Based on projected a.m. and p.m. peak hour volumes, the addition of project traffic would result in levels of service that exceed the County's LOS E standard at four intersections along Latrobe Road, as described below.

At the Latrobe Road/White Rock Road intersection, LOS is projected to deteriorate from A to F during the a.m. peak hour and from D to F during the p.m. peak hour. This intersection is currently stop-controlled and meets the peak hour warrant for signalization. Although signalization would improve operating conditions, it would not accommodate existing-plus-project traffic volumes at an acceptable (E or better) level of service.

At the Latrobe Road/Golden Foothill Parkway North intersection, the addition of project-generated traffic would result in a deterioration of LOS from E to F during the a.m. peak hour and an exacerbation of existing LOS F conditions during the p.m. peak hour. This intersection is one of the main access points for the El Dorado Hills Business Park serving both passenger cars and delivery trucks. Although project trips would not be using this intersection to gain direct access into the project site, the addition of through traffic on Latrobe Road is sufficient to exacerbate existing traffic operating conditions. This intersection is currently stop-controlled and meets the peak hour warrant for signalization. Although signalization would improve operating conditions, it would not accommodate existing-plus-project traffic volumes at an acceptable (E or better) level of service.

At the Latrobe Road/Golden Foothill Parkway South intersection, LOS is projected to deteriorate from B to F during the a.m. peak hour and from D to F during the p.m. peak hour. A proposed residential street through the project site would intersect with Golden Foothill Parkway near the south end. The

addition of trips from this connector along with project trips already traveling along Latrobe Road would create LOS F conditions during both peak hours.

At the Latrobe Road/Investment Boulevard intersection, resulting LOS is projected to deteriorate from A to F during the a.m. peak hour and from B to F during the p.m. peak hour. Investment Boulevard would provide a direct connection with a proposed community collector on the eastern edge of the project site. Because of the direct connection to Latrobe Road via Investment Boulevard, this community collector is expected to attract most of the east-west trips to Latrobe Road generated by the project. Frequent eastbound left-turns onto Latrobe Road and southbound right-turns from Latrobe Road are expected at this intersection.

Levels of service at the Latrobe Road/Wetsel-Oviatt Road intersection are not expected to change from the existing a.m. and p.m. peak hour LOS of A with buildout of the proposed Specific Plan. About 5% of the project traffic is expected to have origins or destinations south of the Latrobe Road/Payen Road intersection. Existing roadway and intersection capacity is available to accommodate this small increase in traffic at acceptable levels of service.

Buildout of the Specific Plan would create a new intersection on Latrobe Road with the possible extension of Payen Road. The Specific Plan reserves a two- to four-lane right-of-way for the extension of Payen Road through the project area that would connect Latrobe Road to White Rock Road. Similar to the Investment Boulevard intersection with Latrobe Road, this new connector, if constructed, would experience high turning volumes for northbound vehicles leaving the project site and southbound vehicles entering the site. As a new intersection, sufficient capacity would be available to accommodate project traffic, even with the assumption that Payen Road would only be extended as a two-lane arterial and the intersection is stop controlled. This intersection is projected to operate at LOS C and LOS D during the a.m. and p.m. peak hours, respectively.

> IMPACT 4.5-7: PEAK HOUR TRAFFIC VOLUMES (WHITE ROCK ROAD INTERSECTIONS). BUILDOUT OF THE PROPOSED SPECIFIC PLAN WOULD INCREASE TRAFFIC VOLUMES ALONG WHITE ROCK ROAD, RESULTING IN PEAK HOUR LEVELS OF SERVICE THAT EXCEED THE COUNTY'S LOS E STANDARD AT TWO INTERSECTIONS (NOT INCLUDING INTERSECTION WITH LATROBE ROAD DISCUSSED IN IMPACT 4.5-6). THIS WOULD BE CONSIDERED A SIGNIFICANT IMPACT.

As discussed under Impact 4.5-6, buildout of the proposed Specific Plan would result in projected a.m. and p.m. peak hour LOS of F at the intersection of Latrobe Road/White Rock Road intersection. Proposed project traffic would also result in peak hour levels of service that exceed the County's LOS E standard at two other intersections along White Rock Road. These intersections are described below.

At the White Rock Road/Placerville Road/Payen Road intersection, LOS is projected to deteriorate from A to F during the a.m. and p.m. peak hours. Payen Road will be limited to a two-lane rural collector in Sacramento County (Tracy, pers. comm., 1994). As a result, LOS F conditions are projected to occur at the intersection with White Rock Road under existing-plus-project conditions.

Buildout of the Specific Plan would create a new intersection on White Rock Road with the proposed north-south project access road. This intersection is projected to operate at LOS D during the a.m. peak hour and LOS F during the p.m. peak hour as an unsignalized intersection. As currently planned, the project access road would be a two-lane community collector. Because the access road would be situated closer to Latrobe Road, it would attract more project trips than Payen Road, which would also be two lanes but would be located further west than the proposed project access road.

> IMPACT 4.5-8: PUBLIC TRANSIT. BUILDOUT OF THE PROPOSED SPECIFIC PLAN WOULD INCREASE DEMAND FOR PUBLIC TRANSIT SERVICE AND FACILITIES IN WESTERN EL DORADO COUNTY, INCLUDING FIXED ROUTE SERVICE, COMMUTER SERVICE, DIAL-A-RIDE SERVICE, AND PARK-AND-RIDE LOT SPACES. TO ACCOMMODATE THESE TRIPS, POLICY 3.9.2.3 AND OTHER POLICIES OF THE EL DORADO COUNTY GENERAL PLAN REQUIRE NEW DEVELOPMENT TO INSTALL BUS TURNOUTS, BUS SHELTERS, AND OTHER PUBLIC TRANSPORTATION-RELATED IMPROVEMENTS WHERE APPROPRIATE. SINCE THE SPECIFIC PLAN DOES NOT CONTAIN IMPLEMENTATION MECHANISMS FOR THE MASS TRANSIT STATION AND PARKING AND IT DOES NOT IDENTIFY BUS TURNOUTS OR BUS SHELTERS, THIS IMPACT WOULD BE CONSIDERED SIGNIFICANT.

Transit impacts under existing-plus-project conditions were determined by comparing the proposed Specific Plan for compatibility and consistency with:

- Existing transit facilities or routes;
- Planned transit facilities or routes from the El Dorado Transit *Short Range Transit Plan,* 1990;
- Goals, objectives, and policies of the *El Dorado County General Plan*, Volume I - Goals, Objectives and Policies, Chapter 3 - Circulation. January 1996.

In furtherance of General Plan Objective 3.9.1, the General Plan contains a number of policies similar to Policy 3.9.2.3 (e.g., Policies 3.9.1.1, 3.9.1.4, 3.9.2.4, and 3.10.2.2) that require new development to construct or install bus turnouts, bus shelters, and transportation related improvements to accommodate travel demand created by the implementation of new land uses. In addition, Policies 3.6.2.1 and 3.7.2.1 relate to the establishment of an intermodal facility in and extension of rail service to western El Dorado County. These policies apply to the project site's frontage on existing roadways and proposed public

roadways within the project site. According to the proposed Specific Plan, the project site would contain a mass transit station in anticipation that rail service would be available in the future, and associated parking spaces. Although the exact date of a rail service extension to El Dorado County is unknown, the parking lot could be used immediately by residents of the project site, employees of proposed onsite land uses, and employees from the adjacent offsite business park uses. The Specific Plan, however, does not identify the timing or responsibilities for the mass transit station or parking development. The plan also does not identify where bus turnouts and bus shelters would be located throughout the project site. Therefore, public transit impacts would be considered significant.

> IMPACT 4.5-9; BICYCLE/PEDESTRIAN FACILITIES. BUILDOUT OF THE SPECIFIC PLAN WOULD GENERATE WALKING AND BICYCLING TRIPS WITHIN THE PROJECT SITE AND VICINITY. ALTHOUGH THE PROPOSED SPECIFIC PLAN IDENTIFIES ONSITE BICYCLE AND PEDESTRIAN FACILITIES, IT DOES NOT INCLUDE BIKE LANES ALONG THE PROJECT'S FRONTAGE ON WHITE ROCK ROAD AS PROPOSED IN THE EL DORADO COUNTY BIKEWAY MASTER PLAN AND REQUIRED BY EL DORADO COUNTY GENERAL PLAN POLICY 3.11.1.1. THIS GENERAL PLAN INCONSISTENCY WOULD BE CONSIDERED A SIGNIFICANT IMPACT.

Bicycle and pedestrian impacts under existing-plus-project conditions were determined by comparing the proposed Specific Plan for compatibility and consistency with:

- Existing bikeway and pedestrian facilities;
- Planned bikeway facilities from the El Dorado County *Bikeway Master Plan*, 1979;
- Goals, objectives and policies of the *El Dorado County General Plan*, Volume I - Goals, Objectives and Policies, Chapter 3 - Circulation. January 1996.
- Planned hiking and equestrian trails in the *El Dorado County Hiking and Equestrian Trails Master Plan*. 1989.

There are no existing pedestrian or bikeway facilities in the immediate vicinity of the proposed project that could be impacted by implementation of the Carson Creek Specific Plan. There are, however, impacts related to consistency with planned facilities and the policies of the General Plan, which are described below.

General Plan Policies 3.9.1.6, 3.9.1.7, 3.11.2.3, and 3.11.2.4 require that the proposed project provide a combination of land uses and pedestrian/bicycle facilities to better accommodate for alternative transportation modes. Specific facilities include separated routes for non-motorized traffic, bicycle racks, showers, lockers, and staging areas. The Specific Plan would be consistent with the above policies, because it identifies these routes and their implementation mechanisms.

General Plan Policy 3.9.1.6 requires a developer within a Community Region to cooperate with the County in providing for the construction of separate or integrated pedestrian and bicycle paths to allow unimpeded circulation within the entire property being developed. Because the Specific Plan proposes a complete pedestrian and bicycle path system through the project area, it would be consistent with Policy 3.9.1.6.

General Plan Policy 3.11.1.1 requires, where practical and safe, the dedication of right-of-way and construction of bicycle, hiking, and equestrian trails in conformance with the County's *Bikeway Master Plan* and *Hiking and Equestrian Trails Master Plan*. The Bikeway Master Plan, adopted 1979 and currently being revised, indicates a proposed Class II bicycle facility along the project's frontage with White Rock Road. The proposed Bikeway Master Plan revisions in progress could include a Class I facility along White Rock Road east of the project access road. Although the Specific Plan proposes a complete pedestrian and bicycle path system through the project area, it does not contain Class I or II bike lanes on White Rock Road along the project frontage, as identified in the existing and proposed Bikeway Master Plans. This inconsistency with the Bikeway Master Plan would be considered a significant impact.

General Plan Policy 3.11.1.2 provides that bicycle, hiking, and equestrian routes should be planned to facilitate access to recreational areas. The proposed Specific Plan would be consistent with this policy because bicycle and pedestrian facilities are proposed adjacent to and within the Carson Creek channel to allow for recreational use of open space areas.

Policy 3.11.1.3 provides that biking, hiking, and equestrian trails should be designed to interface with other modes of transportation (e.g., trains, transit stations, and park-N-ride lots, etc.) to encourage the use of non-motorized transportation modes and reduce the use of motor vehicles. The proposed Specific Plan would be consistent with this policy, because proposed pedestrian and bicycling facilities would lead to the proposed mass transit station and associated parking facilities on the project site.

The proposed Specific Plan would be consistent with the Hiking and Equestrian Trails Master Plan. The proposed Mormon-Carson Trail alignment is located parallel to and immediately north of White Rock Road and would not be affected by the proposed Specific Plan. This would be considered a less-than-significant impact.

> IMPACT 4.5-10: CONSISTENCY WITH RELEVANT GENERAL PLAN PROVISIONS. THE SPECIFIC PLAN WOULD BE REQUIRED TO COMPLY WITH RELEVANT EL DORADO COUNTY GENERAL PLAN OBJECTIVES AND POLICIES RELATED TO TRANSPORTATION AND CIRCULATION. THE SPECIFIC PLAN WOULD BE GENERALLY CONSISTENT WITH GENERAL PLAN PROVISIONS, EXCEPT, AS PREVIOUSLY DISCUSSED, IN RELATION TO PROJECTED ROADWAY LEVELS OF SERVICE AND THE SPECIFIC PLAN'S FAILURE TO PROVIDE

BICYCLE/PEDESTRIAN PATHS ALONG WHITE ROCK ROAD AND BUS TURNOUTS/SHELTERS. THIS WOULD BE CONSIDERED A SIGNIFICANT IMPACT.

The proposed Specific Plan would be required to comply with the relevant El Dorado County General Plan provisions previously listed in this section. As identified previously under Impacts 4.5-1, 4.5-2, 4.5-4, 4.5-5, and 4.5-6, several roadway segments and intersections are projected to operate in excess of the County's LOS E standard, as provided in General Plan Policy 3.5.1.1. As discussed under Impact 4.5-7, the Specific Plan does not identify bus turnouts or shelters as required by Policies 3.9.1.1, 3.9.1.4, 3.9.2.3, 3.9.2.4, and 3.10.2.2. Furthermore, as discussed under Impact 4.5-8, the Specific Plan does not provide for bike lanes along the project site's frontage with White Rock Road as required by Policy 3.11.1.1. The Specific Plan would, however, be generally consistent with other relevant General Plan provisions, as discussed previously in this section. Because the Specific Plan would be inconsistent with the aforementioned General Plan provisions, this would be considered a significant impact.

4.5.3 MITIGATION MEASURES

The following mitigation measures apply to the impacts discussed above according to their reference number. Since a number of the mitigation measures require the payment of impact fees (consistent with General Plan Policies 3.2.1.1, 3.2.1.2, and 3.2.1.3), the specific timing of mitigation implementation will depend on the collection of fees and improvement priorities established by the El Dorado County Department of Transportation (DOT). To the extent possible, traffic volumes and service levels should be monitored by the DOT and mitigation measures installed when the LOS exceeds E.

Most of the mitigation measures below require the developer to pay impact fees, or "fair-share" fees (as noted in General Plan Objective 3.2.2 and Policy 3.2.2.1) that will be used to construct roadway improvements or interchange improvements (consistent with General Plan Objective 3.3.1 and Policy 3.2.2.2. In many cases, the improvements must first be added to the County's TIM or RIF programs (consistent with General Plan policy 3.2.1.1) and the fees recalculated. Since an update of these programs is not currently scheduled, the developer and the County are responsible for ensuring that the proposed improvements will be constructed prior to traffic operating conditions reaching LOS E.

MITIGATION MEASURE 4.5-1: DAILY TRAFFIC VOLUME (LATROBE ROAD).

The project developer shall be responsible for their "fair-share" cost of widening Latrobe Road from two lanes to six lanes with a median from White Rock Road to the U.S. Highway 50 eastbound ramps. These improvement projects are included in the El Dorado Hills RIF; therefore, the project developer shall pay the RIF fee prior to the issuance of building permits. Implementation of this mitigation measure would improve the daily level of service on Latrobe Road to B.

MITIGATION MEASURE 4.5-5: PEAK HOUR TRAFFIC VOLUMES (U.S. HIGHWAY 50 INTERCHANGE).

The project developer shall be responsible for contributing their "fair-share" of the cost to reconstruct the El Dorado Hills Boulevard/Latrobe Road interchange and widen U.S. Highway 50 to six lanes as shown in Exhibit 4.5-10. Reconstruction of the interchange is included in the RIF; therefore, the project developer shall pay the RIF fee prior to the issuance of building permits. A separate impact fee program has been established to fund the mainline widening of U.S. Highway 50 through the western portion of El Dorado County. A fair-share contribution of this fee shall also be paid by the project developer prior to the issuance of building permits. Implementation of this mitigation measure would improve the ramp intersection and ramp junction levels of service as follows:

- El Dorado Hills Boulevard/U.S. Highway 50 westbound ramps intersection - LOS from F to B during the a.m. peak hour and from E to C during the p.m. peak hour;
- Latrobe Road/U.S. Highway 50 eastbound ramps intersection LOS from F to B during the a.m. peak hour and from F to B during the p.m. peak hour;
- U.S. Highway 50 eastbound diagonal on-ramp - LOS A during the a.m. peak hour and LOS D during the p.m. peak hour;
- U.S. Highway 50 eastbound loop off-ramp - LOS B during the a.m. peak hour and LOS D during the p.m. peak hour;
- U.S. Highway 50 westbound diagonal on-ramp - LOS C during the a.m. peak hour and LOS B during the p.m. peak hour; and
- U.S. Highway 50 westbound diagonal off-ramp - LOS C during the a.m. peak hour and LOS B during the p.m. peak hour.

Reconstruction of the interchange may also include the addition of a eastbound diagonal off-ramp and westbound loop off-ramp. Both of these new ramps would also operate at LOS D or better during both peak hours.

MITIGATION MEASURE 4.5-6: PEAK HOUR TRAFFIC VOLUMES (LATROBE ROAD INTERSECTIONS).

The following mitigation measures address the four intersections along Latrobe Road that are projected to operate at unacceptable (worse than LOS E) levels of service with buildout of the Specific Plan.

a) In addition to mitigation measure 4.5-1, the project developer shall be responsible for their "fair-share" cost of signalization and turn lane improvements at the White Rock Road/Latrobe Road intersection as shown on Exhibit 4.5-11. Signalization of this intersection is currently included in the RIF program; therefore, the project developer shall pay the RIF fee prior to the issuance of building permits. Implementation of this mitigation measure would improve the White Rock Road/Latrobe Road intersection LOS from F to B during the a.m. peak hour and from F to C during the p.m. peak hour.

b) The project developer shall be responsible for their "fair-share" cost of signalization and turn lane improvements at the Latrobe Road/Golden Foothill Parkway North intersection as shown on Exhibit 4.5-11. El Dorado County shall include this project in the Traffic Impact Mitigation

(TIM) program and the project developer shall pay the updated TIM fee prior to the issuance of building permits. Implementation of this mitigation measure would improve the Latrobe Road/Golden Foothill Parkway North intersection LOS from F to B during the a.m. peak hour and from F to D during the p.m. peak hour.

c) The project developer shall be responsible for their "fair-share" cost of signalization and turn lane improvements at the Latrobe Road/Golden Foothill Parkway South intersection as shown on Exhibit 4.5-11. El Dorado County shall include this project in the updated TIM fee and the project developer shall pay the fee prior to the issuance of building permits. Implementation of this mitigation measure would improve the Latrobe Road/Golden Foothill Parkway South intersection LOS from F to B during the a.m. and from F to C during the p.m. peak hours.

d) The project developer shall be responsible for their "fair-share" cost of the following improvements:

- Modifying turn lanes at the Latrobe Road/Investment Boulevard intersection (see Exhibit 4.5-11);
- Signalizing the Latrobe Road/Investment Boulevard intersection.

El Dorado County shall include these improvement projects in the TIM program. The project developer shall pay the updated TIM fee prior to the issuance of building permits. Implementation of this mitigation measure would improve the Latrobe Road/Investment Boulevard intersection LOS from F to B during the a.m. and p.m. peak hours.

The Latrobe Road/Investment Boulevard intersection operates at LOS B during the p.m. peak hour with one left-turn lane on the eastbound approach. The left-turn volume is 600 vehicles per hour during the p.m. peak hour. Occasional queuing of vehicles on the left-turn lane could occur on the eastbound approach. The County should monitor the queues and design the left-turn pocket for this movement to accommodate the volumes. If the County decides to provide dual left-turn lanes for this left-turn movement, an additional northbound lane would be required on Latrobe Road between Investment Boulevard and Golden Foothill Parkway South.

MITIGATION MEASURE 4.5-7: PEAK HOUR TRAFFIC VOLUMES (WHITE ROCK ROAD INTERSECTIONS).

The following mitigation measures address the two intersections along White Rock Road (west of Latrobe Road) that are projected to operate at LOS F with buildout of the Specific Plan.

a) The project developer shall be responsible for their "fair-share" cost of signalization and turn lane improvements at the White Rock Road/Payen Road intersection as shown on Exhibit 4.5-11. Since this intersection is located in Sacramento County, El Dorado County shall be responsible for executing an agreement with Sacramento County to share in the cost of signalization. El Dorado County's share of the cost shall be included in the TIM program and the project developer shall pay the updated TIM fee prior to the issuance of building permits. Implementation of this mitigation measure would improve the White Rock Road/Payen Road intersection LOS from F to B during the a.m. and p.m. peak hours.

b) The project developer shall be responsible for their "fair-share" cost of signalization and turn lane improvements at the White Rock Road/Project Access Road intersection as shown on Exhibit 4.5-

11. El Dorado County shall include this project in the TIM program and the project developer shall pay the updated TIM fee prior to the issuance of building permits. Implementation of this mitigation measure would improve the White Rock Road/Project Access Road intersection LOS from D to B during the a.m. peak hour and from F to C during the p.m. peak hour. This intersection was analyzed with lane configuration as shown in Exhibit 4.5-11. For a worst-case scenario, this analysis assumed that all the project traffic traveling on White Rock Road would use this intersection to access the site resulting in a westbound to southbound left-turn volume of approximately 600 vehicles during the p.m. peak hour. This volume is conservative since westbound left-turn access on White Rock Road will be available at one other project driveway according to El Dorado County Department of Transportation staff.

MITIGATION MEASURE 4.5-8: PUBLIC TRANSIT.

The project developer shall be responsible for the construction of a bus turnout and transit shelter along the project site frontage on White Rock Road when fixed route transit service or commuter service is extended to serve the project. The project developer shall also reserve the land area for the proposed mass transit station and parking area as identified in the Carson Creek Specific Plan.

Although not required as part of this mitigation measure, the project developer, El Dorado County Department of Transportation, and the El Dorado County Transit Authority should also develop an implementation plan that identifies the construction phasing and financing for the parking area, other transit shelters within the project site, and the mass transit station. This implementation plan should be approved by El Dorado County Department of Transportation and the El Dorado County Transit Authority prior to the issuance of building permits.

MITIGATION MEASURE 4.5-9: BICYCLE/PEDESTRIAN FACILITIES.

The project developer shall be responsible for the construction of Class II bike lanes along the project site frontage on White Rock Road prior to the issuance of building permits. Implementation of mitigation measure 4.5-2 includes the construction of Class II bike lanes; therefore, no additional mitigation is necessary.

MITIGATION MEASURE 4.5-10: CONSISTENCY WITH RELEVANT GENERAL PLAN PROVISIONS

Apply mitigation measures 4.5-1, 4.5-5 through 4.5-9 and no further mitigation is required.

4.5.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Application of mitigation measures would reduce significant impacts to a less-than-significant level (consistent with General Plan Policy 3.2.1.4), as described below, and no significant and unavoidable traffic and circulation impacts would remain.

- Implementation of mitigation measure 4.5-1 would improve the daily level of service on Latrobe Road between U.S. Highway 50 and White Rock Road from LOS F to B.

- Implementation of mitigation measure 4.5-5 would improve the ramp intersection and ramp junction levels of service as follows:

  - El Dorado Hills Boulevard/U.S. Highway 50 westbound ramps intersection - LOS from F to B during the a.m. peak hour and from E to C during the p.m. peak hour;

  - Latrobe Road/U.S. Highway 50 eastbound ramps intersection LOS from F to B during the a.m. peak hour and from F to B during the p.m. peak hour;

  - U.S. Highway 50 eastbound diagonal on-ramp - LOS A during the a.m. peak hour and LOS D during the p.m. peak hour;

  - U.S. Highway 50 eastbound loop off-ramp - LOS B during the a.m. peak hour and LOS D during the p.m. peak hour;

  - U.S. Highway 50 westbound diagonal on-ramp - LOS C during the a.m. peak hour and LOS B during the p.m. peak hour; and

  - U.S. Highway 50 westbound diagonal off-ramp - LOS C during the a.m. peak hour and LOS B during the p.m. peak hour.

  Reconstruction of the interchange may also include the addition of a eastbound diagonal off-ramp and westbound loop off-ramp. Both of these new ramps would also operate at LOS D or better during both peak hours.

- Implementation of mitigation measure 4.5-6a would improve the White Rock Road/Latrobe Road intersection LOS from F to B during the a.m. peak hour and from F to C during the p.m. peak hour.

- Implementation of mitigation measure 4.5-6b would improve the Latrobe Road/Golden Foothill Parkway North intersection LOS from F to B during the a.m. peak hour and from F to D during the p.m. peak hour.

- Implementation of mitigation measure 4.5-6c would improve the Latrobe Road/Golden Foothill Parkway South intersection LOS from F to B during the a.m. and from F to C during the p.m. peak hours.

- Implementation of mitigation measure 4.5-6d would improve the Latrobe Road/Investment Boulevard intersection LOS from F to B during the a.m. and p.m. peak hours.

- Implementation of mitigation measure 4.5-7a would improve the White Rock Road/Payen Road intersection LOS from F to B during the a.m. and p.m. peak hours.

- Implementation of mitigation measure 4.5-7b would improve the White Rock Road/Project Access Road intersection LOS from D to B during the a.m. peak hour and from F to C during the p.m. peak hour.

4.6 AIR QUALITY

4.6.1 ENVIRONMENTAL SETTING

REGIONAL CONDITIONS

Setting

The project site is located in the extreme western portion of the Mountain Counties Air Basin (Basin) of California, an approximately 11,000-square-mile area encompassing Plumas, Sierra, Nevada, Amador, Calaveras, Tuolumne, and Mariposa counties, in addition to the western slope of El Dorado County and the central portion of Placer County. The majority of the Basin is located in the northern Sierra Nevada with the western boundary of the basin extending into the Sacramento Valley. The project site is within the jurisdiction of the El Dorado County Air Pollution Control District (El Dorado County APCD).

Climate

The general climate of the Basin varies considerably with elevation and proximity to mountain peaks. The terrain features of the Basin make it possible for various climates to exist within the general area. The pattern of mountains and hills is primarily responsible for the wide variations of rainfall, temperatures, and localized winds that occur throughout the region. Temperature variations have an important influence on basin wind flow, dispersion along mountain ridges, vertical mixing, and photochemistry. The Sierra Nevada receives large amounts of precipitation from storms moving over the continent from the Pacific Ocean. Precipitation in the Basin is highly variant, depending on elevation and location. Areas in the eastern portion of the Basin, with relatively high elevations, receive the most precipitation. Precipitation levels decline toward the western areas of the Basin. Climates vary from alpine-like in the high elevations of the eastern areas to more arid at the western edge of the Basin.

LOCAL CONDITIONS

The project site is located in the El Dorado Hills area near the western border of El Dorado County. The El Dorado Hills area is located in the lower foothills of the Sierra Nevada with elevations ranging from approximately 300 to 1,000 feet.

The climate of the El Dorado Hills area is largely influenced by its setting in the lower elevations of the Sierra Nevada foothills and its proximity to the neighboring Sacramento Valley. Temperature data monitored at the Folsom Dam weather station show an annual average of 61.6 degrees Fahrenheit (F),

ranging from a July average high temperature of 91.2 degrees F to a January average low temperature of 37.7 degrees F. In wintertime, during calm, clear nights, the localized mountain and valley air flow is enhanced, and cool air drains downslope toward the valley floor. The El Dorado Hills area receives frost several times a year and light snowfall on an infrequent basis. Annual precipitation for the area is approximately 24 inches and occurs almost exclusively from late October through May (NOAA 1992).

Winds across the project area constitute an important meteorological parameter in relation to air pollutant impacts. Winds control both the initial rate of dilution of locally generated air pollutant emissions, as well as controlling their regional trajectory. During the day, effects of an up-valley flow tend to push air from the Sacramento Valley easterly over the project site. During the night, surface radiation cools the air in the mountains, resulting in a down-gradient flow into the Valley and producing a gentle "drainage wind."

On an annual basis, surface winds prevail from the north and northwest. Long-term wind data recorded in Citrus Heights, the wind station closest (approximately 5 miles west) to the project site, indicate that daily winds average 4.3 mph (CARB 1994a).

AIR QUALITY STANDARDS

Ambient air quality is described in terms of compliance with state and national standards. Ambient air quality standards are the level of air pollutant concentration considered safe to protect the public health and welfare. These standards are designed to protect people most sensitive to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. National Ambient Air Quality Standards (NAAQS) were established by the U.S. Environmental Protection Agency (EPA) in 1971 for six air pollution constituents. States have the option to add other pollutants, to require more stringent compliance, or to include different exposure periods. California Ambient Air Quality Standards (CAAQS) and NAAQS are listed in Table 4.6-1.

Attainment Status Designations

The California Air Resources Board (CARB) is required to designate areas of the state as attainment, nonattainment, or unclassified for any state standard. An "attainment" designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A "nonattainment" designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An "unclassified" designation signifies that data do not support either an attainment or nonattainment status.

TABLE 4.6-1
AMBIENT AIR QUALITY STANDARDS

	California [a]	National [b]	
Air Pollutant	**Concentration**	**Primary (>)**	**Secondary (>)**
Ozone	0.09 ppm, 1-hr avg	0.12 ppm, 1-hr avg	0.12 ppm, 1-hr avg
Carbon Monoxide	9 ppm, 8-hr avg 20 ppm, 1-hr avg	9 ppm, 8-hr avg 35 ppm, 1-hr avg	9 ppm, 8-hr avg 35 ppm, 1-hr avg
Nitrogen Dioxide	0.25 ppm, 1-hr avg	0.053 ppm, annual avg	0.053 ppm, annual avg
Sulfur Dioxide	0.04 ppm, 24-hr avg 0.25 ppm, 1-hr avg	0.03 ppm, annual avg 0.14 ppm, 24-hr avg	0.50 ppm, 3-hr avg
Suspended Particulate Matter (PM_{10})	30 $\mu g/m^3$ annual geometric mean 50 $\mu g/m^3$, 24-hr avg	50 $\mu g/m^3$ annual arithmetic mean 150 $\mu g/m^3$, 24-hr avg	50 $\mu g/m^3$ annual arithmetic mean 150 $\mu g/m^3$, 24-hr avg
Sulfates	25 $\mu g/m^3$, 24-hr avg		
Lead	1.5 $\mu g/m^3$, 30-day avg	1.5 $\mu g/m^3$, calendar quarter	1.5 $\mu g/m^3$, calendar quarter
Hydrogen Sulfide	0.03 ppm, 1-hr avg		
Vinyl Chloride	0.010 ppm, 24-hr avg		
Visibility Reducing Particles	In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70%.		

[a] California standards for ozone, carbon monoxide, sulfur dioxide (1-hour), suspended particulate matter-PM_{10} visibility reducing particles, are values that are not to be exceeded. The sulfur dioxide (24-hour), sulfates, lead, hydrogen sulfide, and vinyl chloride standards are not to be equaled or exceeded.

[b] National standards, other than ozone and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.

Note: ppm = parts per million by volume
$\mu g/m^3$ = micrograms per cubic meter

Source: California Air Resources Board 1994b

The California Clean Air Act (CCAA) divides districts into moderate, serious, and severe airpollution categories, with increasingly stringent control requirements mandated for each category.

The EPA designates areas for ozone (O_3), carbon monoxide (CO), and nitrogen dioxide (NO_2) as either "Does not meet the primary standards," or "Cannot be classified," or "Better than national standards." For sulfur dioxide (SO_2), areas are designated as "Does not meet the primary standards," "Does not meet the secondary standards," "Cannot be classified," or "Better than national standards." In 1991, new nonattainment designations were assigned to areas that had previously been classified as Group I, II, or III for Particulate Matter (PM_{10}) based on the likelihood that they would violate national PM_{10} standards. All other areas are designated "Unclassified."

Criteria Pollutants

Criteria pollutants in the Basin, and their state and federal status designations are described below. Exhibit 4.6-1 presents this information.

Ozone

Ozone (O_3) is a colorless toxic gas that irritates the lungs and damages materials and vegetation. Because O_3 formation is the result of photochemical reactions between nitrogen oxides (NO_x) and reactive organic gases (ROG), often used interchangeably with "volatile organic compounds" (VOC), peak concentrations of O_3 occur downwind of precursor emission sources. The portion of El Dorado County within the Mountain Counties Air Basin is designated as a nonattainment area for state and federal O_3 standards (CARB 1994b).

Carbon Monoxide

Carbon monoxide (CO) is a colorless gas produced almost entirely from automobile exhaust. This pollutant interferes with the transfer of oxygen to the brain. It is generally associated with areas of high traffic density. The part of El Dorado County within the Mountain Counties Air Basin is designated as an unclassified area for state CO standards and as unclassified/attainment for federal CO standards. However, the eastern part of El Dorado County that is part of the Lake Tahoe Air Basin is designated as a nonattainment area for state and federal CO standards (CARB 1994b).

Nitrogen Dioxide

Nitrogen dioxide (NO_2), often used interchangeably with NO_x, is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO_2 occur in areas that have a high concentration

State

	ATTAINMENT	NON-ATTAINMENT	UNCLASSIFIED
Ozone ●		■	
Carbon Monoxide ●			■
Nitrogen Dioxide ▲	■		
PM-10 *		■	
Sulfur Dioxide ▲	■		
Lead ▲	■		

Federal [1]

	ATTAINMENT	NON-ATTAINMENT [2]	UNCLASSIFIED ATTAINMENT [3]	UNCLASSIFIED [4]
Ozone ●		■		
Carbon Monoxide ●			■	
Nitrogen Dioxide ▲			■	
PM-10 ▲				■
Sulfur Dioxide ▲				■

▲ Mountain Counites Air Basin (MCAB)
* El Dorado County
● MCAB Portion of El Dorado County

NOTES:
[1] For a detailed description of the federal standards, please refer to the text
[2] Does not meet primary standards
[3] Does not violate the national standards
[4] Can not be classified or better than national standards

Source: CARB, September 1995.

Ambient Air Quality Attainment Status
Mountain Counties Air Basin - El Dorado County

EXHIBIT 4.6-1

of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations) in the vicinity. The entire Basin, including El Dorado County, is in attainment for NO_2 (CARB 1994b).

Total Suspended Particulates/Particulate Matter

On July 1, 1987, the EPA replaced the total suspended particulate (TSP) standard with a new particulate standard known as PM_{10}. PM_{10} includes only particulate matter 10 microns or less in diameter. El Dorado County is designated as a nonattainment area for state PM_{10} standards. The entire Basin, including El Dorado County is designated as unclassified for federal PM_{10} standards (CARB 1994b).

Sulfur Dioxide and Lead

Sulfur dioxide (SO_2), often used interchangeably with SO_x, and lead levels in all areas of the Basin are below national and state standards. The entire Mountain Counties Air Basin, including El Dorado County, is in attainment for these pollutants (CARB 1994b).

Meteorological Influences on Air Quality

Regional flow patterns have an effect on air quality patterns by directing pollutants downwind of sources. Localized meteorological conditions, such as light winds and shallow vertical mixing, and topographical features, such as surrounding mountain ranges, create areas of high pollutant concentrations by hindering dispersal. When a warm layer of air traps cooler air close to the ground, an inversion layer is produced. Such temperature inversions especially hamper dispersion by creating a ceiling over the area and trapping air pollutants near the ground.

During summer's longer daylight hours, plentiful sunshine provides the energy needed to fuel photochemical reactions between NO_x and ROG, which result in O_3 formation. To reach high levels of O_3 requires adequate sunshine, early morning stagnation in source areas, high surface temperatures, strong and low morning inversions, greatly restricted vertical mixing during the day, and daytime subsidence that strengthens the inversion layer. Because of the long formation time associated with O_3, high O_3 patterns are primarily a function of pollutant transfer patterns. The up-valley wind flow pattern that predominates throughout most of the year is an effective pollutant transport route from the Sacramento Valley Air Basin in to the Mountain Counties Air Basin.

In the winter, temperature inversions predominate during the night and early morning hours but frequently dissipate by afternoon. At this time, the greatest pollution problems are from CO and NO_x.

High CO concentrations occur on winter days with strong surface inversions and light winds. Carbon monoxide transport is extremely limited.

High NO_2 levels usually occur during the autumn or winter on days with summer-like weather conditions. These conditions include low inversions, limited daytime mixing, and stagnant windflow conditions. Although days are clear, sunlight is limited in duration and intensity, therefore, photochemical reactions necessary to form O_3 are incomplete.

Atmospheric particulates are made up of fine solids or liquids such as soot, dust, aerosols, fumes, and mists. A large portion of the TSP matter is PM_{10}. These small particulates cause the greatest health risk since they can more easily penetrate the defenses of the human respiratory system. Peak concentrations of PM_{10} occur downwind of precursor emission sources.

Air Quality Monitoring

Ambient air quality data for western El Dorado County were obtained from the Placerville/Gold Nugget monitoring station, operated by CARB. The Placerville/Gold Nugget station began monitoring O_3, CO, and PM_{10} concentrations in April 1992. Prior to the opening of CARB's Placerville station, ambient air quality data were available from two ambient air quality stations located in Placerville and Shingle Springs (Ponderosa High School) and operated by El Dorado County Air Pollution Control District (El Dorado County APCD). El Dorado County APCD's Placerville station monitored PM_{10} concentrations and the Ponderosa High School station monitored CO concentrations, but these stations ceased operation in June 1990. Ambient air quality data from the Sacramento Metropolitan Air Quality Management District's (SMAQMD) Folsom monitoring station, located approximately 5 miles northwest of the project site in the eastern portion of the Sacramento Valley Air Basin, are also available for certain pollutants. Table 4.6.2 summarizes the last 5 years of published data from these monitoring stations.

As indicated in Table 4.6-2, there have been some exceedances of O_3 and PM_{10} standards over the past 5 years. Carbon monoxide and NO_2 standards were not exceeded at the stations listed in Table 4.6.2 during the 5-year period.

REGULATORY FRAMEWORK

Federal Clean Air Act

The federal 1970 Clean Air Act (CAA) authorized the establishment of national health-based air quality standards, and also set deadlines for their attainment. The federal Clean Air Act Amendments of 1990 (1990 CAA) made major changes in deadlines for attaining National Ambient Air Quality Standards

TABLE 4.6-2

SUMMARY OF ANNUAL AIR QUALITY DATA
FOLSOM, PLACERVILLE, AND PONDEROSA HIGH SCHOOL
AIR QUALITY MONITORING STATIONS

	1990	1991	1992	1993	1994
Folsom					
Ozone (O_3)					
State Standard (1-hr avg 0.09 ppm) Federal Standard (1-hr avg 0.12 ppm)					
Maximum Concentration	0.11	0.19	0.15	0.15	0.14
Number of Days State Standard Exceeded	3	52	42	24	31
Number of Days Federal Standard Exceeded	0	12	9	3	6
Placerville and Ponderosa High School					
Ozone (O_3)					
Maximum Concentration	NM	NM	0.12[1,2]	0.12[1,2]	0.13[1,2]
Number of Days State Standard Exceeded	NM	NM	29	10	26
Number of Days Federal Standard Exceeded	NM	NM	0	0	2
Suspended Particulates (PM_{10})					
State Standard (24-hr avg 50 $\mu g/m^3$) Federal Standard (24-hr avg 150 $\mu g/m^3$)					
Maximum 24-hr Concentration	89[3]	NM	103[1,2]	62[2]	34[2]
% Samples Exceeding State 24-hr Standard	8	NM	3	2	0
% Samples Exceeding Federal 24-hr Standard	0	NM	0	0	0
Carbon Monoxide (CO)					
State Standard (1-hr/8-hr avg 20/9.1 ppm) Federal Standard (1-hr/8-hr avg 35/9.5 ppm)					
Maximum Concentration 1-hr/8-hr period	5/3.5[4]	NM	2/2.1[1,2]	2/1.5[2]	2/1.3[2]
Number of Days State 1-hr/8-hr Standard Exceeded	0/0	NM	0/0	0/0	0/0
Number of Days Federal 1-hr/8-hr Standard Exceeded	0/0	NM	0/0	0/0	0/0

[1] Data presented are valid, but incomplete in that an insufficient number of data points were collected to meet EPA and/or ARB criteria for representativeness.
[2] CARB Placerville station, 1992 - 1994
[3] EDCAPCD Placerville station, 1990
[4] EDCAPCD Ponderosa High School (Shingle Springs) station, 1990

ppm : parts per million
AAM : annual arithmetic mean
$\mu g/m^3$: micrograms per cubic meter
NM : not measured

Source: California Air Resources Board 1991, 1992, 1993, 1994, 1996

(NAAQS) and in the actions required of areas of the nation that exceeded these standards. Under the CAA, state and local agencies in areas that exceed the NAAQS are required to develop state implementation plans (SIPs) to show how they will achieve the NAAQS for ozone by specific dates. Failure of California's state and local agencies to develop a SIP by the statutory deadline resulted in a series of lawsuits and appeals that began in 1988. Pursuant to this litigation, the EPA was ordered by the courts to create a draft federal implementation plan (FIP) for the Sacramento Valley Area Air Quality Maintenance Area (SVAAQMA), which includes Sacramento County, Yolo County, and portions of Placer, El Dorado, Sutter, and Solano counties, to address SVAAQMA's inability to meet federal ozone (O_3) standards (EPA 1995). Implementation of the FIP, however, is prohibited by H.R. 889, the Department of Defense Emergency Supplemental Appropriations Bill, which contains legislative language that will allow California to comply with the CAA by using its own SIP to attain federal air quality standards. This bill was signed into law by President Clinton in April 1995.

On November 15, 1994, CARB submitted its SIP to the EPA for review, which may take up to 2 years. If found to be adequate by the EPA, the SIP would be adopted by EPA. If implemented, the SIP would strive for compliance with federal O_3 standards by year 2010 through provisions that would: (1) establish a buy-back program for older, polluting cars; (2) set minimum percentage requirements for low and zero-emission vehicles in new car fleets; and (3) incorporate regional attainment plans throughout the state into the SIP (EPA 1995).

On November 15, 1994, the Sacramento Proposed Regional Ozone Attainment Plan (ROAP) was submitted in draft form as part of the SIP for EPA review. The ROAP was cooperatively prepared by CARB and five Air Pollution Control Districts (APCD) or Air Quality Management Districts (AQMD): the Sacramento Metropolitan AQMD (SMAQMD), the Yolo-Solano AQMD, the Feather River AQMD, El Dorado County APCD, and Placer County APCD. The ROAP focuses on reducing emissions of O_3 precursors through stationary and mobile source reduction measures (El Dorado County APCD *et al.* 1994).

The CAA requires that projects receiving federal funds demonstrate conformity to the approved State Implementation Plan (SIP)/local air quality attainment plan for the region. Conformity with the SIP may be required. EPA has announced its proposed approval of portions of the SIP amendments submitted by CARB in November 1994 (California Environmental Publications 1996). At this time, however, the SIP recently adopted by CARB has not yet been approved by the EPA. Nevertheless, since California standards are more strict than federal standards, conformity with the California requirements should also satisfy the CAA requirements.

California Clean Air Act

The California Clean Air Act (CCAA), 1988, requires that all air districts in the state endeavor to achieve and maintain CAAQS for O_3, CO, sulfur dioxide (SO_2), and nitrogen dioxide (NO_2) by the earliest practical date. Plans for attaining CAAQS were submitted to the CARB by June 30, 1991. The CCAA mandates that districts focus particular attention on reducing emissions from transportation and area-wide emission sources, and the Act provides districts with new authority to regulate indirect sources. Each district plan is to achieve a 5% annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. Any additional development within the region obviously would impede the reduction goals of the CCAA.

A strict interpretation of the reduction goals suggests that any general development that increases traffic within the region, no matter how large or small, would have a significant, project-specific air quality impact unless the development-related emissions are offset by concurrent emission reductions elsewhere within the airshed. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

In an effort to reach attainment of the state standards for O_3, the El Dorado County APCD, the district with jurisdiction over the project site, submitted the draft version of its 1991 California Clean Air Act Plan (CCAAP) in compliance with the CCAA. The final plan, as approved and adopted by the El Dorado County APCD in May 1993, is discussed in further detail below (El Dorado County APCD 1993). The CCAA requires triennial progress reports or updates on each air district's progress towards attainment. CARB has determined that the 1994 ROAP submitted along with the SIP for federal CAA purposes also satisfies the CCAA requirement for a triennial update (El Dorado County APCD *et al.*, 1994).

El Dorado County California Clean Air Act Plan

As previously discussed, El Dorado County is in nonattainment of the CAAQS for O_3 and PM_{10}. As a result, the El Dorado County APCD was required to prepare an air quality attainment plan, the El Dorado County CCAAP, as revised May 18, 1993. The CCAAP provides a schedule for the adoption of rules geared toward the reduction of O_3 precursors, NO_x and ROG/VOC, from stationary sources. The CCAAP also provides a schedule for the implementation and funding of Transportation Control Measures (TCM) to curb mobile source emissions through a reduction in vehicle miles traveled (VMT). Although the CCAAP places less emphasis on PM_{10}, consistent with the CCAA, the CCAAP does provide some measures for the reduction of construction-related PM_{10} emissions.

Relevant County General Plan, Goals, Objectives, and Policies

The air quality element of the El Dorado County General Plan, as adopted January 1996, provides the following air quality objectives and policies relative to the proposed project:

Objective 6.7.4: Project Design and Mixed Uses - Encourage project design that protects air quality and minimizes direct and indirect emissions of air contaminants.

Policy 6.7.4.1 - Reduce automobile dependency by permitting mixed land use patterns which locate services such as banks, child care facilities, schools, shopping centers and restaurants in close proximity to employment centers and residential neighborhoods.

Policy 6.7.4.2 - Promote the development of new residential uses within walking or bicycling distance to the County's larger employment centers.

Policy 6.7.4.3 - New development on large tracts of undeveloped land near the rail corridor shall, to the extent practical, be transit supportive with high density or intensity of use.

Policy 6.7.4.4 - All discretionary development applications shall be reviewed to determine the need for pedestrian/bike paths connecting to adjacent development and to common service facilities (e.g., clustered mail boxes, bus stops, etc.).

Policy 6.7.4.5 - Specific plans submitted for the development of lands designated Planned Communities (-PC) on the General Plan land use map shall provide for the implementation of all policies contained under Objective 6.7.4 herein.

Objective 6.7.6: Air Pollution-Sensitive Land Uses - Separate air pollution sensitive land uses from significant sources of air pollution.

Policy 6.7.6.1 - Ensure that new facilities in which sensitive receptors are located (e.g., schools, child care centers, playgrounds, retirement homes, and hospitals) are sited away from significant sources of air pollution.

4.6.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Supplementary document G (Significant Effects) of the State CEQA Guidelines states that a project would normally be considered to have a significant effect on air quality if:

- the project violates any ambient air quality standard, contributes substantially to an existing or projected air quality violation, or exposes sensitive receptors to substantial pollutant concentrations.

To date the El Dorado County APCD has not published any significance thresholds, which would be used to determine whether the potential air quality impacts of a project need to be analyzed in an EIR. In the absence of established District CEQA guidelines, the recommended significance criteria are those levels that trigger the need for offsets as specified in the local New Source Review (NSR) standards (CARB 1989). El Dorado County APCD recently promulgated Rule 523, which specifies local NSR standards. For the purposes of this EIR, the following Rule 523 NSR standards shall serve as significance thresholds for operational emissions:

- Reactive Organic Gases (ROG): 10 pounds per day (lbs/day)
- Carbon Monoxide (CO): 550 lbs/day
- Oxides of Nitrogen (NO_x): 10 lbs/day
- Respirable Particulate Matter (PM_{10}): 80 lbs/day
- Sulfur Oxides (SO_x): 80 lbs/day

Because air quality impacts during project construction are not long-term, a different set of criteria apply for construction impacts. The following standards, as taken from El Dorado County APCD Rule 523.3, shall apply to construction emissions:

- ROG: 10 lbs/day
- NO_x: 10 lbs/day
- PM_{10}: 80 lbs/day

Qualitative analysis is appropriate if a project's air quality impacts cannot be evaluated quantitatively. Qualitative thresholds should be used as screening criteria to indicate the need for further analysis involving other air quality issues such as hazardous and toxic emissions. Qualitative emission thresholds are applied primarily toward long-term emissions during the project's operational phase rather than short-term construction-related emissions. The following qualitative emission thresholds are applicable to the proposed project:

- Projects that could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation;
- Projects that will possibly generate vehicle trips that cause a CO hot spot;
- Projects occupied by sensitive receptors within a quarter mile of an existing facility or near a CO hot spot;
- Projects that involve the use, production, or disposal of a material that poses a health hazard;
- Projects contributing to an existing or projected air quality violation.

Thus far, the District has not published any impact guidelines regarding mobile source emissions.

SHORT-TERM CONSTRUCTION EMISSIONS

Short-term emissions occur during the construction of a project. Construction-related emissions occur in two separate phases. Phase I emissions occur during the grading phase of construction. Phase II emissions occur after grading and during the actual construction of roadways, structures, and facilities. Project construction is also proposed to take place in two phases, with construction of the first phase being completed prior to commencement of grading and construction on the second phase. The first phase would include development of the approximately 160-acre Euer Ranch (northern) portion of the Plan Area. The second phase would include development of the remaining approximately 550-acre Carson Creek Ranch (remaining southern) portion of the Plan Area. Buildout of the Specific Plan area is anticipated to take place over approximately 15 years.

> IMPACT 4.6-1: PHASE I (GRADING PHASE) CONSTRUCTION EMISSIONS. GRADING ACTIVITIES ASSOCIATED WITH THE CONSTRUCTION OF SPECIFIC PLAN LAND USES WOULD GENERATE INDIVIDUAL, SITE-SPECIFIC SHORT-TERM ROG, NO_x, AND PM_{10} EMISSIONS THAT WOULD EXCEED APPLICABLE EL DORADO COUNTY APCD THRESHOLDS. THIS WOULD BE CONSIDERED A SIGNIFICANT AND UNAVOIDABLE SHORT-TERM IMPACT.

Phase I construction emissions, which occur during the grading phase of construction, consist of employee trips, exhaust emissions from grading equipment, and fugitive dust emissions. The following analysis assumes that a maximum of 50 acres would be under construction at any one time throughout the construction period. This assumption considers the amount of open space that would be retained, the approximate duration of construction, and the possibility of construction overlap on various portions of the Plan Area at one time. Table 4.6-3 presents the grading phase construction emissions anticipated from project construction. The individual components of grading phase emissions are discussed below.

Employee Trips

Employee trips are generated from commute trips to and from the work site, business throughout the day, and lunch trips. Based on the daily acreage to be graded, employee trips during facilities construction would result in the generation of approximately 4 lbs/day of ROG, 3 lbs/day of NO_x, and 3 lbs/day of PM_{10}. These amounts alone would not exceed the applicable El Dorado County APCD thresholds for the respective pollutants.

Exhaust Emissions

Exhaust emissions would result from the use of heavy-duty diesel machinery during the grading phase of project construction. Assuming 1 grader, 1 wheeled dozer, and 1 tracked loader are each used 6 hours

a day for every 10 gross acres, equipment exhaust emissions associated with daily grading activities are presented in Table 4.6-3. As shown, projected ROG and NO_x emissions would exceed applicable El Dorado County APCD significance thresholds for short-term construction activities.

Fugitive Dust Emissions

Heavy construction is a source of dust emissions that may have a substantial, temporary impact on local air quality. Fugitive dust emissions are associated with land clearing, ground excavation, cut and fill operations, and the construction of a facility itself. Dust emissions also vary substantially from day to day, depending on the level of activity, the specific operations, and weather conditions. A large portion of emissions result from equipment traveling over unpaved roads at construction sites.

TABLE 4.6-3
SHORT-TERM PHASE I CONSTRUCTION EMISSIONS [1]

SOURCE	POLLUTANT (lbs/day)		
	ROG	NO_x	PM_{10}
Employee Trips [2]	4.0	2.8	2.5
Grading Equipment [3]	12.5	80.0	14.0
Fugitive Dust [4]	0	0	3,035.0
Total Phase I Construction Emissions	**16.5**	**82.8**	**3,051.5**
Total Phase I Emissions with Mitigation	n/a	n/a	775 [5]
El Dorado County APCD Threshold [6]	10	10	80

1 Emissions calculated based on Sacramento Metropolitan AQMD (SMAQMD) emission factors.
2 Assumes 50 construction employees, 2 daily trips per employee, 10 mile average trip length.
3 Assumes 1 grader, 1 wheeled loader, and 1 tracked loader operating 6 hours per day for every 10 gross acres.
4 Assumes 1 storage pile covering 1/5 acre and 3 heavy equipment used 6 hours per day for every 10 gross acres.
5 Mitigation measures include watering exposed soil and haul roads with adequate frequency to keep soil moist at all times. A 75% control efficiency was assumed (SMAQMD 1994).
6 Thresholds for short-term construction emissions taken from El Dorado County APCD Rule 523.3. Shaded cells indicate project emissions that exceed threshold levels.

Source: Michael Brandman Associates 1996

It is estimated that 40 to 50% of fugitive dust is composed of the regulated pollutant PM_{10}. The remainder is composed of large particles of dust that settle out rapidly on surfaces very near the source. These large particles (or visible dust) are easily filtered by human breathing passages and represent a nuisance, rather than a health concern. As presented in Table 4.6-3, projected PM_{10} emissions would substantially exceed the applicable APCD thresholds for short-term construction emissions.

In an effort to reduce the project's contribution to current regional exceedances of the state PM_{10} standard, feasible mitigation measures to reduce fugitive dust required by El Dorado County APCD Rule 223 are presented at the end of this section. The implementation of these dust suppression techniques can reduce fugitive dust generation (and thus the PM_{10} component) by up to 88% based on fugitive dust mitigation factors published by the Sacramento Metropolitan AQMD (SMAQMD 1994) and the South Coast AQMD (SCAQMD 1993). However, as noted in Table 4.6-3, assuming a control efficiency of 75% (SMAQMD 1994) with implementation of all feasible mitigation measures, PM_{10} emissions from project grading would be reduced to approximately 775 lbs/day, an amount that still exceeds the APCD's threshold.

Because total Phase I construction emissions would exceed the applicable El Dorado County APCD thresholds for ROG, NO_x, and PM_{10}, this would be considered a short-term significant impact.

> IMPACT 4.6-2: PHASE II (FACILITIES PHASE) CONSTRUCTION EMISSIONS. CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE CONSTRUCTION OF SPECIFIC PLAN INFRASTRUCTURE AND LAND USES WOULD GENERATE SHORT-TERM ROG AND NO_x EMISSIONS THAT WOULD EXCEED APPLICABLE EL DORADO COUNTY APCD THRESHOLDS. THIS WOULD BE CONSIDERED A SIGNIFICANT AND UNAVOIDABLE SHORT-TERM IMPACT.

Facilities construction emissions, which occur during the actual construction of roadways, structures, and facilities associated with the proposed project, consist of emissions from employee trips, asphalt paving, mobile and stationary construction equipment, and architectural coatings. The following analysis assumes that a maximum of 200 residential units and 80,000 square feet of combined commercial and research and development uses would be under construction at any one time throughout the construction period. This assumption considers the approximate duration of construction and the possibility of construction overlap on various portions of the Plan Area at one time. Table 4.6-4 presents facilities construction emissions associated with construction of the proposed Specific Plan land uses. The individual components of facilities construction phase emissions are discussed below.

TABLE 4.6-4
SHORT-TERM PHASE II CONSTRUCTION EMISSIONS [1]

SOURCE	POLLUTANT (lbs/day)		
	ROG	NO_x	PM_{10}
Employee Trips	4.0	2.8	2.5
Asphalt Paving	6.5	0	0
Stationary Equipment	47.0	38.4	2.2
Mobile Equipment	44.8	450.8	33.6
Architectural Coatings	32.7	0	0
Total Phase II Construction Emissions	**135.0**	**492.0**	38.3
El Dorado County APCD Threshold[2]	10	10	80

1 Emissions calculated based on Sacramento Metropolitan AQMD emission factors.
2 Thresholds for short-term construction emissions taken from El Dorado County APCD Rule 523.3. Shaded cells indicate project emissions that exceed threshold levels.

Source: Michael Brandman Associates 1996

Employee Trips

Employee trips are generated from commute trips to and from the work site, business throughout the day, and lunch trips. Based on the area of the proposed land uses, employee trips during facilities construction would result in the generation of approximately 4 lbs/day of ROG, 3 lbs/day of NO_x, and 3 lbs/day of PM_{10}. These amounts alone would not exceed the applicable El Dorado County APCD thresholds for the respective pollutants.

Asphalt Paving

ROG emissions are released through the evaporation of solvents contained in paving materials used during the facilities construction phase. The amount of ROG emissions attributable to asphalt paving is a function of the acreage paved and the duration of paving activities. Assuming the construction of 25 acres of paved surface at a time over 10 paving days, asphalt paving would result in the emission of approximately 7 lbs/day of ROG during the days of paving. This amount alone would not exceed the applicable APCD threshold for ROG. The proposed project would be required to comply with El Dorado County APCD Rule 224, which specifies the types of asphalt paving materials that may be used. Rule 224 prohibits the use of rapid-cure asphalt paving materials, medium-cure cutback asphalt (except as

provided in Rule 224.1B), and slow-cure cutback asphalt containing more than 0.5 % by volume of organic compounds that evaporate at 260 degrees C (500 degrees F) or lower as determined by American Society of Testing and Materials (ASTM) Method D402-76 (1976).

Stationary Equipment

Emissions from stationary construction equipment occur when machinery such as generators or gas-powered saws are used at the construction site. Assuming the construction of a maximum of 200 residences and 80,000 square feet of industrial/commercial uses at a time, stationary equipment would result in the emission of approximately 47 lbs/day of ROG, 38 lbs/day of NO_x, and 2 lbs/day of PM_{10}, amounts which exceed the El Dorado County APCD thresholds for ROG and NO_x. In addition, under El Dorado County APCD Rule 233, a permit to operate temporary internal combustion engines (ICEs) could be required if an individual engine is rated greater than 50 brake horsepower (bhp), and stationary ICEs could be required to meet Best Available Control Technology (BACT) standards if emissions from individual ICEs exceed 10 lbs/day of NO_x or 10 lbs/day of ROG.

Mobile Equipment

Emissions from mobile construction equipment such as fork lifts and dump trucks constitute the primary component of Phase II construction emissions. Assuming the construction of a maximum of 200 residences and 80,000 square feet of industrial/commercial uses at a time, mobile construction equipment emissions would be approximately 45 lbs/day of ROG, 450 lbs/day of NO_x, and 34 lbs/day of PM_{10}. Projected ROG and NO_x emissions would exceed the El Dorado County APCD threshold for that pollutant.

Architectural Coatings

ROG emissions would result from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings used during Phase II construction. Assuming the construction of a maximum of 200 residences and 80,000 square feet of industrial/commercial uses per day, architectural coatings would generate approximately 33 lbs/day of ROG, an amount that exceeds the APCD's threshold for that pollutant. The proposed project would be required to comply with all applicable provisions of El Dorado County APCD Rule 215, which specifies the types of architectural coatings that may be used (El Dorado County APCD 1995).

As presented in Table 4.6-4, total projected Phase II construction emissions would exceed the El Dorado County APCD thresholds for ROG and NO_x. This would be considered a significant short-term impact.

LONG-TERM OPERATIONAL EMISSIONS

Operational emissions occur after construction is completed and structures are occupied and/or in use. Operational emissions are considered long-term because they continue almost indefinitely. Long-term operational emissions consist of stationary source emissions, which result from energy use and residential fireplace emissions on the project site, and mobile source emissions, which result from motor vehicle trips generated by the proposed Specific Plan land uses.

> IMPACT 4.6-3: STATIONARY SOURCE EMISSIONS. BUILDOUT OF THE SPECIFIC PLAN WOULD RESULT IN AN INCREASE IN LONG-TERM REGIONAL ENERGY CONSUMPTION. PROJECTED EMISSIONS RELATED TO NATURAL GAS AND RESIDENTIAL FIREPLACE EMISSIONS WOULD RESULT IN EXCEEDANCES OF THE EL DORADO COUNTY APCD THRESHOLDS FOR ROG AND NO_X. THIS WOULD BE CONSIDERED A SIGNIFICANT AND UNAVOIDABLE IMPACT.

Specific Plan land uses would generate no major onsite stationary emission sources but would represent an increase in long-term regional energy consumption. Electricity and natural gas are used in nearly all urban settings, and are proposed for use with the Specific Plan. Pollution is emitted through the generation of electricity and consumption of natural gas. Residential fireplaces, which could be used for supplemental heating or for aesthetic effect, also generate air pollution. Because electrical generating facilities for El Dorado County are located outside the County or are offset through the use of pollution credits, electricity-generated pollution is discounted. Emissions from natural gas and residential fireplace usage, however, would occur at the Specific Plan area with buildout of the project. Table 4.6-5 presents stationary source emissions associated with buildout of the Specific Plan.

As presented in Table 4.6-5, natural gas consumption emissions associated with buildout of the Specific Plan are projected to be approximately 4 lbs/day of ROG, 14 lbs/day of CO, 57 lbs/day of NO_x, and 0.1 lbs/day of PM_{10}. Residential fireplace use, assuming that 30% of residences burning an average of 3 kg of wood per residence per day, would generate approximately 65 lbs/day of ROG, 454 lbs/day of CO, 8 lbs/day of NO_x, and 73 lbs/day of PM_{10}. It should be noted that fireplace emissions are highly variable depending on the season and are a function of many wood characteristics and operating practices. The assumptions made for this analysis represent a worst-case wintertime scenario, when fireplace emissions are at a maximum. Total stationary source emissions, including natural gas and fireplace emissions, would exceed the El Dorado County APCD's thresholds for ROG and NO_x and would, therefore, be considered a significant impact.

TABLE 4.6-5
PROJECTED STATIONARY SOURCE EMISSIONS [1]
SPECIFIC PLAN BUILDOUT

EMISSION SOURCE	POLLUTANT (lbs/day)				
	ROG	CO	NO_x	PM_{10}	SO_x
Natural gas consumption emissions [1]	3.6	13.5	56.8	0.1	0
Residential fireplace emissions [2]	64.8	453.6	8.1	72.9	0
Total Stationary Source Emissions	**68.4**	**467.1**	**64.9**	**73.0**	**0 [3]**
El Dorado County APCD Thresholds[4]	10	550	10	80	80

[1] Based on emission factors provided by the Sacramento Metropolitan AQMD and the South Coast AQMD. Assumes 2,701 residential units and 1,083,000 square feet of commercial and research and development uses.
[2] Based on EPA AP-42 emission factors. Assumes 30% of residences are burning wood on a given day and 3 kg of wood are burned per household per day.
[3] SO_x emissions from natural gas consumption and residential fireplace use would be negligible.
[4] Thresholds for operational emissions are taken from El Dorado County APCD Rule 523. Shaded cells indicate project emissions that exceed threshold levels.

Source: Michael Brandman Associates 1996

IMPACT 4.6-4: REGIONAL MOBILE SOURCE EMISSIONS. BUILDOUT OF THE SPECIFIC PLAN WOULD RESULT IN INCREASED VEHICLE TRIPS AND ASSOCIATED MOBILE SOURCE EMISSIONS. VEHICLE EMISSIONS ATTRIBUTABLE TO BUILDOUT OF THE SPECIFIC PLAN WOULD RESULT IN EXCEEDANCES OF THE EL DORADO COUNTY APCD'S ROG, CO, AND NO_X SIGNIFICANCE THRESHOLDS. THIS WOULD BE CONSIDERED A SIGNIFICANT AND UNAVOIDABLE IMPACT.

A regional air quality impact assessment was conducted using the computer model URBEMIS5. This model is recommended by air quality regulating agencies for determination of mobile-source emissions. Table 4.6-6 presents regional mobile source emissions associated with buildout of the proposed Specific Plan.

As indicated in Table 4.6-6, the proposed project would have the potential to generate mobile source emissions of approximately 556 lbs/day of ROG, 4,281 lbs/day of CO, 432 lbs/day of NO_x, 43 lbs/day of PM_{10}, and 27 lbs/day of SO_x. These amounts would exceed the El Dorado County APCD's thresholds for ROG, CO, and NO_x. Mobile source emissions of PM_{10} and SO_x would not alone exceed El Dorado County APCD thresholds for these pollutants. However, mobile and stationary source emissions of PM_{10} could collectively exceed the applicable APCD threshold. Therefore, regional mobile source emissions would be considered a significant impact.

TABLE 4.6-6
PREDICTED MOBILE SOURCE EMISSIONS [1]
SPECIFIC PLAN BUILDOUT

	POLLUTANT (lbs/day)				
	ROG [2]	CO	NO_x	PM_{10}	SO_x
Specific Plan buildout [3]	556.3	4,281.0	431.8	42.9	26.8
Specific Plan buildout w/trip reduction [4]	472.9	3,638.9	367.0	36.5	22.8
El Dorado County APCD Threshold[5]	10	550	10	80	80

1 Based on URBEMIS5 modeling results.
2 ROG amounts obtained by multiplying TOG emissions by a factor of 0.897.
3 Based on ITE trip generation figures (see Section 4.5).
4 Based on estimated trip reduction of 15%.
5 Thresholds for operational emissions taken from El Dorado County APCD Rule 523. Shaded cells indicate project emissions that exceed threshold levels.

Source: Michael Brandman Associates 1996

As discussed in the Transportation and Circulation section (Section 4.5) of this EIR, the projected vehicle trip generation for buildout of the Specific Plan was determined using trip generation factors published by the Institute of Transportation Engineers (ITE). The ITE trip generation factors are based on average trip generation rates for various types of land uses. The above mobile source emissions figures are based on ITE trip generation rates. The proposed Specific Plan, however, incorporates several features that could result in fewer vehicle trips than would be estimated using the ITE methodology. Potential trip-reducing features that would be implemented under the Specific Plan include a mixture of complementary land uses on the project site, a proposed mass transit station on the project site, bicycle and pedestrian facilities on the project site and reduced setback distances between development and pedestrian corridors. Based on trip reduction factors published by the Sacramento Metropolitan AQMD, buildout of the Specific Plan could result in approximately 15% fewer trips than predicted by ITE methodology. Projected regional mobile source emissions would, therefore, be reduced by approximately 15%. As presented in Table 4.6-6, total regional mobile source emissions of ROG, CO, and NO_x would still exceed the applicable El Dorado County APCD thresholds despite consideration of trip reduction.

IMPACT 4.6-5: LOCAL MOBILE SOURCE EMISSIONS. BUILDOUT OF THE SPECIFIC PLAN WOULD RESULT IN INCREASED VEHICLE TRIPS AND ASSOCIATED MOBILE SOURCE EMISSIONS. VEHICLE EMISSIONS ATTRIBUTABLE TO BUILDOUT OF THE SPECIFIC PLAN WOULD NOT RESULT IN EXCEEDANCES OF STATE AND FEDERAL CO STANDARDS AT MODELED INTERSECTIONS. THIS WOULD BE CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

The primary mobile source pollutant of local concern is CO. Carbon monoxide concentration is a direct function of vehicle idling time and, thus, traffic flow conditions. Carbon monoxide transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (residents, school children, hospital patients, the elderly, etc.). Typically, high CO concentrations are associated with roadways or intersections operating at high levels of service (LOS D or below). In areas with a high ambient background CO concentration, modeling of CO concentrations is recommended in determining a project's effect on local CO levels.

The projected CO emissions of the proposed project were assessed through the use of the CALINE4 computer model. This program allows microscale CO concentrations to be estimated along roadway corridors and intersections. Worst-case ambient concentrations and meteorological conditions were assumed in order to determine the potential for CO "hot spots" or exceedances. Table 4.6-7 presents predicted existing, existing-plus-project, and cumulative-plus-project CO concentrations for four intersections in the project vicinity. The intersections were selected based on the likelihood of congestion and proximity of sensitive receptors.

As presented in Table 4.6-7, traffic generated by the proposed project, in conjunction with existing traffic, would not result in exceedances of state or federal 1-hour or 8-hour CO standards at the 4 modeled intersections. Because projected CO concentrations would not exceed state or federal standards at the modeled intersections, local mobile source emissions would be considered a less-than-significant impact.

OTHER LONG-TERM IMPACTS

> IMPACT 4.6-6: ODORS. BUILDOUT OF THE SPECIFIC PLAN COULD RESULT IN THE EXPOSURE OF ONSITE RESIDENTS, EMPLOYEES, AND OTHERS TO ODORS EMANATING FROM THE EXISTING, OFFSITE EL DORADO HILLS WASTEWATER TREATMENT PLANT, WHICH IS LOCATED APPROXIMATELY ONE-HALF MILE EAST OF THE PROJECT SITE ALONG LATROBE ROAD. HOWEVER, GIVEN THE DISTANCE FROM THE NEAREST PROPOSED ONSITE RESIDENTIAL USES TO THE EDHWTP AND THE PREVAILING WIND PATTERNS, ADVERSE ODOR IMPACTS AT ONSITE RESIDENTIAL USES WOULD BE UNLIKELY. THIS WOULD BE CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

Neither the EPA nor CARB have established ambient air quality criteria for odors. However, unpleasant odors can be a nuisance to exposed receptors. The existing El Dorado Hills Wastewater Treatment Plant (EDHWTP) is located approximately one-half mile east of the project site along Latrobe Road, and would continue to process wastewater with buildout of the Specific Plan. Under certain meteorological

TABLE 4.6-7
PREDICTED CARBON MONOXIDE CONCENTRATIONS [1]

INTERSECTION	Averaging Time	Existing Conditions [2]	Existing + Project [3]	Cumulative w/ Project [4]
Latrobe Road & White Rock Road	1-hour	6.0	7.8	19.3
	8-hour	4.2	5.5	13.5
Latrobe Road & Highway 50 Eastbound Ramps	1-hour	7.0	8.4	n/a
	8-hour	4.9	5.9	n/a
El Dorado Hills Boulevard & Highway 50 Westbound Ramps	1-hour	10.2	12.9	n/a
	8-hour	7.1	9.0	n/a
Project Access Road & White Rock Road	1-hour	n/a	11.1	n/a
	8-hour	n/a	7.8	n/a
California Standards[5]	**1-hour**	**20.0**	**20.0**	**20.0**
	8-hour	**9.0**	**9.0**	**9.0**
Federal Standards[5]	**1-hour**	**35.0**	**35.0**	**35.0**
	8-hour	**9.5**	**9.5**	**9.5**

1 Concentrations are listed in parts per million (ppm). Concentrations are the sum of the maximum ambient concentrations of 5 ppm (1-hour) and 3.5 ppm (8-hour), as measured at the Shingle Springs monitoring station in 1990, and locally generated CO (as determined by CALINE4 based on worst-case wind angles). A 70% persistence factor was used to convert 1-hour model results to 8-hour concentrations.

2 Based on p.m. peak-hour traffic counts conducted by Fehr & Peers Associates in March 1995.

3 Based on existing p.m. peak-hour traffic data plus anticipated project contribution.

4 Based on General Plan EIR year 2015 traffic data plus project contribution. Background CO concentrations of 3.3 ppm (1-hour) and 2.3 ppm (8-hour) assumed.

5 Shaded cells indicate projected concentrations in excess of state and/or federal CO standards.

n/a: Intersection turning movement data not available to perform CALINE4 analysis.

Source: Michael Brandman Associates 1996

conditions, unpleasant odors generated by wastewater treatment at the EDHWTP could potentially be detected by residents, employees, and other users on the project site. However, given the distance of the nearest proposed onsite uses to the EDHWTP (approximately 3,000 feet) and the prevailing wind patterns (from the northwest), proposed onsite uses would probably not be substantially affected by odors generated at the EDHWTP. Therefore, this would be considered a less-than-significant impact.

GENERAL PLAN CONSISTENCY

> IMPACT 4.6-7: CONSISTENCY WITH RELEVANT GENERAL PLAN PROVISIONS. THE PROPOSED SPECIFIC PLAN WOULD BE REQUIRED TO BE CONSISTENT WITH RELEVANT EL DORADO GENERAL PLAN OBJECTIVES AND POLICIES RELATED TO AIR QUALITY. NO INCONSISTENCIES WITH RELEVANT GENERAL PLAN AIR QUALITY PROVISIONS ARE ANTICIPATED. THIS WOULD BE CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

The proposed Specific Plan is designated Planned Community (-PC) on the General Plan Land Use Map. Therefore, pursuant to Policy 6.7.4.5, the proposed Specific Plan must provide for the implementation of all policies contained under Objective 6.7.4. The proposed Specific Plan is consistent with the policies contained in Objective 6.7.4. The proposed Specific Plan would be consistent with Policy 6.7.4.1, because it would locate services, including schools and shopping, in proximity to residential and employment areas and would, therefore, allow the use of alternative transportation modes. The Specific Plan would be consistent with Policies 6.7.4.2 and 6.7.4.4, because it would provide pedestrian and bicycle access between the business parks and the service-providing areas of the site. The Specific Plan would also be consistent with Policy 6.7.4.3, because it would locate higher-density residential and higher-intensity commercial uses near the proposed mass transit station, which would be located adjacent to the existing SPRR right-of-way.

Furthermore, the proposed Specific Plan would be required to be consistent with Policy 6.7.6.1, which requires that sensitive receptors be located away from significant sources of air pollution. Because the proposed project site would not generate significant onsite air quality impacts and because the project site is not located adjacent to existing or future sources of air pollutants, the proposed Specific Plan would be consistent with Policy 6.7.6.1.

4.6.3 MITIGATION MEASURES

Mitigation measures are provided below to reduce significant or potentially significant air quality impacts of the proposed project to the extent feasible. As discussed in Section 4.1 (Introduction to Environmental Analysis), mitigation measures are numbered corresponding to the number of the impact to be mitigated.

MITIGATION MEASURE 4.6-1: PHASE I (GRADING PHASE) CONSTRUCTION EMISSIONS

a) The project applicant shall comply with El Dorado County APCD Rule 223 as required by the Air Pollution Control Officer. Such precautions may include, but are not limited to, the following:

- Application of water or suitable chemicals or other specified covering on materials stockpiles, wrecking activity, excavation, grading, sweeping, clearing of land, solid waste disposal operations, or construction or demolition of buildings or structures (all exposed soil shall be kept visibly moist during grading);
- Installation and use of hoods, fans and filters to enclose, collect, and clean the emissions of dusty materials;
- Covering or wetting at all times when in motion of open-bodied trucks, trailer or other vehicles transporting materials which create a nuisance by generating particulate matter in areas where the general public has access;
- Application of asphalt, oil, water or suitable chemicals on dirt roads;
- Paving of public or commercial parking surfaces;
- Removal from paved streets and parking surfaces of earth or other material which has a tendency to become airborne;
- Limiting traffic speeds on all unpaved road surfaces to 15 mph;
- Suspending all grading operations when wind speeds exceed 20 miles per hour (including instantaneous gusts);
- Alternate means of control as approved by the Air Pollution Control Officer.

b) Construction equipment engines shall be maintained in proper operating condition.

MITIGATION MEASURE 4.6-2: PHASE II (FACILITIES PHASE) CONSTRUCTION EMISSIONS

a) Low emission mobile construction equipment shall be used (e.g., tractor, scraper, dozer, etc.).

b) Construction equipment engines shall be maintained in proper operating condition.

c) Low-emission stationary construction equipment shall be used.

d) A trip reduction plan shall be developed and implemented to achieve 1.5 average vehicle occupancy (AVO) for construction employees.

e) Construction activity management techniques, such as extending construction period, reducing number of pieces used simultaneously, increasing distance between emission sources, reducing or

changing hours of construction, and scheduling activity during off-peak hours shall be developed and implemented.

f) The project applicant shall comply with El Dorado County APCD Rule 224.

g) The project applicant shall comply with El Dorado County APCD Rule 215.

MITIGATION MEASURE 4.6-3: STATIONARY SOURCE EMISSIONS

a) The applicant shall incorporate energy-saving design features into future levels of project implementation as feasible and appropriate. The feasibility and appropriateness of each measure can best be determined at future, more-detailed levels of planning. These design features may include, but are not limited to, the following:

- Solar or low-emission water heaters;
- Central water heating systems;
- Shade trees;
- Energy-efficient and automated air conditioners;
- Double-pane glass in all windows;
- Energy-efficient low-sodium parking lot lights;
- Adequate ventilation systems for enclosed parking facilities;
- Energy-efficient lighting and lighting controls.

b) The applicant, future successors in interest, or future homebuilders shall install only EPA-certified woodstoves and fireplaces.

MITIGATION MEASURE 4.6-4: REGIONAL MOBILE SOURCE EMISSIONS

Implementation of Mitigation Measures 4.5-1, 4.5-2, and 4.5-4 through 4.5-8 would reduce regional mobile source emissions, but not to a less-than-significant level.

4.6.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Air quality impacts related to Phase I and Phase II construction emissions, stationary source emissions, and regional mobile source emissions would remain significant and unavoidable despite mitigation.

4.7 NOISE

This section includes a summary of the existing noise environment at the project site. The noise study analyzes the future noise impacts to noise-sensitive receptors due to the proposed project. Mitigation measures are recommended as necessary to reduce potentially significant impacts of the project.

4.7.1 ENVIRONMENTAL SETTING

DEFINITION OF NOISE SCALES AND MEASUREMENTS

Community noise levels are measured in A-weighted decibels (dBA). A-weighting is a frequency correction that correlates sound pressure levels with the frequency response of the human ear. Additional units of measurement have been developed to evaluate the long-term characteristics of sound. The equivalent noise level (L_{eq}) is a single-number representation of the fluctuating sound level in decibels over a specified period of time. It is a sound-energy average of the fluctuating level. The "eq" of L_{eq} stands for "equivalent." The L_{eq} of a time-varying sound is equivalent or equal to the level of a constant unchanging sound.

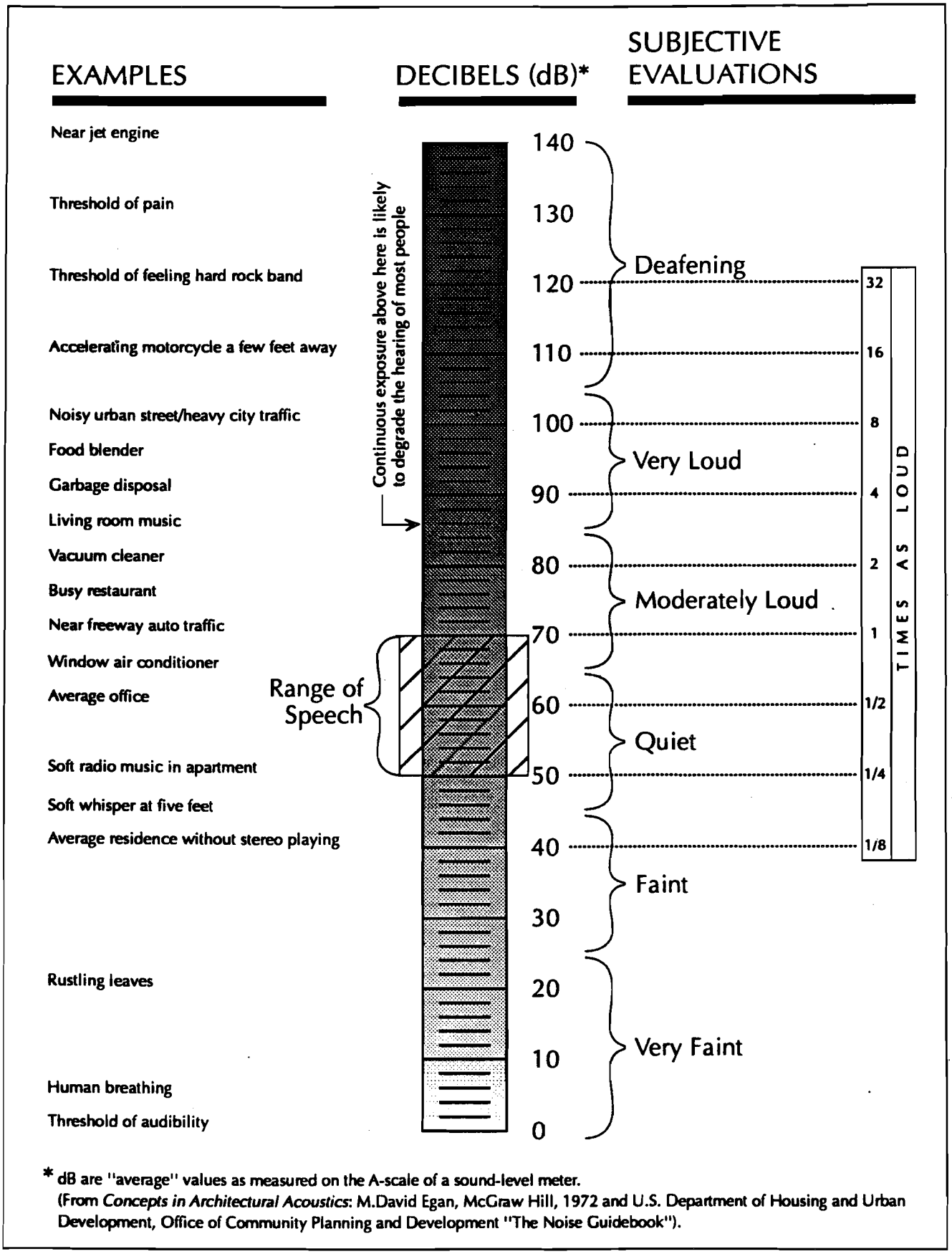
The community noise equivalent level (CNEL) has been adopted (by reference) by El Dorado County to evaluate noise impacts. CNEL represents a time-weighted 24-hour average noise level based on the A-weighted decibel. Time weighted refers to the fact that noise occurring during certain sensitive time periods is penalized for occurring at those times. CNEL includes an additional 5 dBA penalty for events occurring in the evening (7 p.m. to 10 p.m.) and a 10 dBA penalty for events occurring in late evening and early morning hours (between 10 p.m. and 7 a.m.). Typical noise levels for different types of noise sources within communities are presented in Exhibit 4.7-1.

Federal/State/County Noise Criteria

Federal, state and local governments have established noise standards and guidelines to protect citizens from potential hearing damage and various other adverse physiological and social effects associated with noise. The applicable standards and guidelines for this study area are discussed below.

State of California

The State Office of Noise Control, in *Guidelines for the Preparation and Content of Noise Elements of the General Plan* (February 1976), provided guidance for the acceptability of designated land uses within specific CNEL contours. Residential uses are normally unacceptable in areas exceeding 70 dBA CNEL



* dB are "average" values as measured on the A-scale of a sound-level meter.
(From *Concepts in Architectural Acoustics*: M.David Egan, McGraw Hill, 1972 and U.S. Department of Housing and Urban Development, Office of Community Planning and Development "The Noise Guidebook").

Common Sounds in Decibels

EXHIBIT 4.7-1

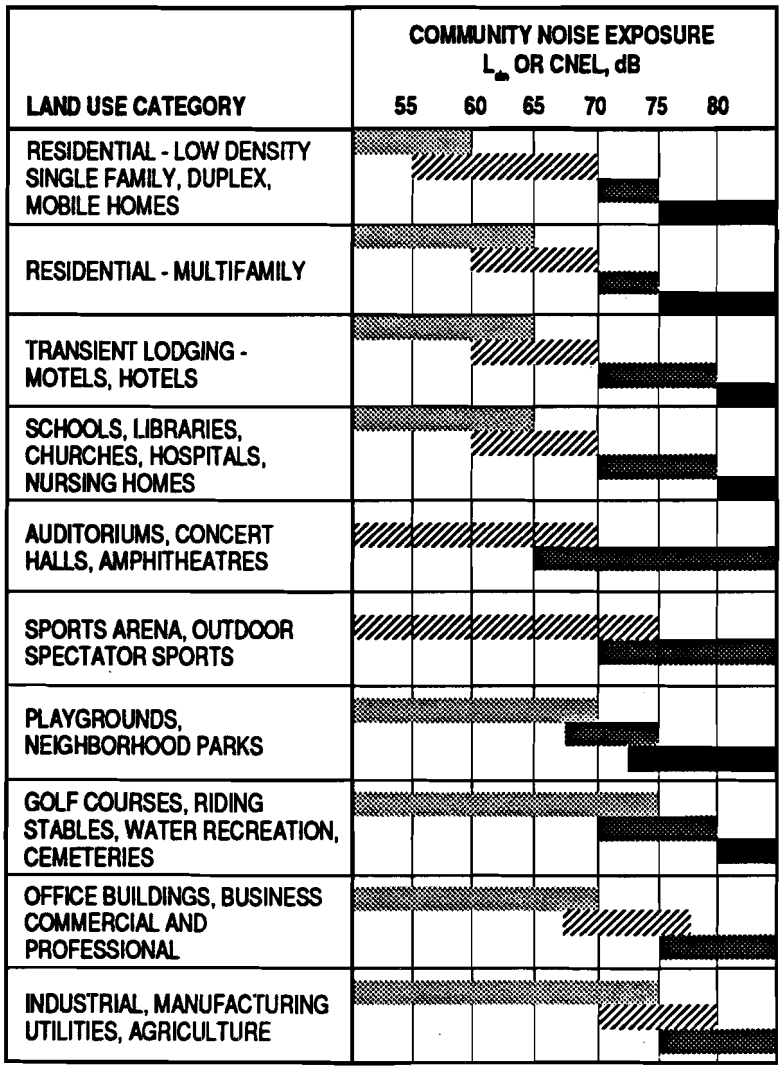
and conditionally acceptable within 60 to 70 dBA CNEL. Commercial/professional office buildings and businesses are normally acceptable in areas up to 70 dBA CNEL and normally unacceptable in areas exceeding 75 dBA CNEL. Between 67 and 77 dBA CNEL, commercial uses are conditionally acceptable, depending on the noise insulation features and the noise reduction requirements. However, the state stresses that these guidelines can be modified to reflect communities' sensitivities to noise. Exhibit 4.7-2 lists typical noise-compatible land uses.

El Dorado County

The Public Health and Safety Element of the El Dorado County General Plan (General Plan) included noise as one of the issues. Noise is described in a sub-element of the Public Health and Safety Element. The goal of the noise sub-element is to ensure that County residents are not subjected to noise beyond acceptable levels.

One of the objectives of the noise sub-element is to protect existing noise-sensitive development (e.g., hospitals, schools, churches, residential) from new uses that would generate noise levels incompatible with those uses and, conversely, discourage noise-sensitive uses from locating near sources of high noise levels. In its noise element, El Dorado County lists maximum allowable noise exposure for transportation noise sources (see Table 4.7-1). The noise element also lists the noise performance standards for noise sensitive land uses (i.e., residences, schools, hospitals) affected by non-transportation sources (see Table 4.7-2). Applicable policies directed at noise regulation that relate to the proposed project include:

> **Policy 6.5.1.2** - Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of [Table 4.7-2] at existing or planned noise-sensitive uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.
>
> **Policy 6.5.1.3** - Where noise mitigation measures are required to achieve the standards of [Tables 4.7-1 and 4.7-2], the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project and the noise barriers are not incompatible with surroundings.
>
> **Policy 6.5.1.7** - Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of [Table 4.7-2] for noise-sensitive uses.
>
> **Policy 6.5.1.10** - To provide a comprehensive approach to noise control, the County shall:
>
> A. Develop and employ procedures to ensure that noise mitigation measures required pursuant to an acoustical analysis are implemented in the project review process and, as may be determined necessary, through the building permit process.



LEGEND

NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

CONSIDERATIONS IN DETERMINATION OF NOISE-COMPATIBLE LAND USE

A. NORMALIZED NOISE EXPOSURE INFORMATION DESIRED

Where sufficient data exists, evaluate land use suitability with respect to a "normalized" value of CNEL or L_{dn}. Normalized values are obtained by adding or subtracting the constants described in Table 1 to the measured or calculated value of CNEL or L_{dn}.

B. NOISE SOURCE CHARACTERISTICS

The land use-noise compatibility recommendations should be viewed in relation to the specific source of the noise. For example, aircraft and railroad noise is normally made up of higher single noise events than auto traffic but occurs less frequently. Therefore, different sources yielding the same composite noise exposure do not necessarily create the same noise environment. The State Aeronautics Act uses 65 dB CNEL as the criterion which airports must eventually meet to protect existing residential communities from unacceptable exposure to aircraft noise. In order to facilitate the purposes of the Act, one of which is to encourage land uses compatible with the 65 dB CNEL criterion wherever possible, and in order to facilitate the ability of airports to comply with the Act, residential uses located in Community Noise Exposure Areas greater than 65 dB should be discouraged and considered located within normally unacceptable areas.

C. SUITABLE INTERIOR ENVIRONMENTS

One objective of locating residential units relative to a known noise source is to maintain a suitable interior noise environment at no greater than 45 dB CNEL of L_{dn}. This requirement, coupled with the measured or calculated noise reduction performance of the type of structure under consideration, should govern the minimum acceptable distance to a noise source.

D. ACCEPTABLE OUTDOOR ENVIRONMENTS

Another consideration, which in some communities is an overriding factor, is the desire for an acceptable outdoor noise environment. When this is the case, more restrictive standards for land use compatibility, typically below the maximum considered "normally acceptable" for that land use category, may be appropriate.

Source: California Department of Health, Guidelines for the Preparation and Content of Noise Elements of The General Plan, February, 1976.

Noise Compatible Land Uses

EXHIBIT 4.7-2

B. Develop and employ procedures to monitor compliance with the standards of the Noise Element after completion of projects where noise mitigation measures were required.

C. The zoning ordinance shall be amended to provide that noise standards will be applied to ministerial projects with the exception of single-family residential building permits if not in areas governed by the Airports Comprehensive Land Use Plans. (See Objective 6.5.2).

TABLE 4.7-1
MAXIMUM ALLOWABLE NOISE EXPOSURE FOR TRANSPORTATION NOISE SOURCES

LAND USE	OUTDOOR ACTIVITY AREAS [1]	INTERIOR SPACES	
	L_{dn}/CNEL, dBA	L_{dn}/CNEL	L_{eq}, dBA [2]
Residential	60 [3]	45	--
Transient Lodging	60 [3]	45	--
Hospitals, Nursing Homes	60 [3]	45	--
Theaters, Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls, Schools	60 [3]	--	40
Office Buildings	--	--	45
Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70	--	--

[1] In Communities and Rural Centers where the location of outdoor activity areas is not clearly defined, the exterior noise level standard shall be applied to the property line of the receiving land use. For residential uses with front yards facing the identical noise source, an exterior noise level criterion of 65 dB L_{dn} shall be applied at the building facade, in addition to a 60 dB L_{dn} criterion at the outdoor activity area. In Rural Regions, an exterior noise level criterion of 60 dB L_{dn} shall be applied at a 100-foot radius from the residence unless it is within Platted Lands where the underlying land use designation is consistent with Community Region densities in which case the 65 dB L_{dn} may apply. The 100-foot radius applies to properties which are five acres or larger; the balance will fall under the property line requirement.

[2] As determined for a typical worst-case hour during periods of use.

[3] Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Source: El Dorado County 1996

TABLE 4.7-2
NOISE LEVEL PERFORMANCE PROTECTION STANDARDS FOR NOISE SENSITIVE LAND USES AFFECTED BY NON-TRANSPORTATION [1] SOURCES

NOISE LEVEL	DAYTIME 7 AM - 7 PM		EVENING 7 PM - 10 PM		NIGHT 10 PM - 7 AM	
DESCRIPTOR	COMMUNITY	RURAL	COMMUNITY	RURAL	COMMUNITY	RURAL
Hourly L_{eq},dB	55	50	50	45	45	40
Maximum level, dB	70	60	60	55	55	50

Each of the above noise levels shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

The County can impose noise level standards which are up to 5 dB less than those specified above based upon determination of existing low ambient noise levels in the vicinity of the project site.

In Community Areas the exterior noise level standard shall be applied to the property line of the receiving property. In Rural Areas the exterior noise level standard shall be applied at a point 100 feet away from the residence. The above standards shall be measured only on property containing a noise sensitive land use as defined in Objective 6.5.1. This measurement standard may be amended to provide for measurement at the boundary of a recorded noise easement between all effected property owners and approved by the County.

[1] For the purposes of the Noise Element, transportation noise sources are defined as traffic on public roadways, railroad line operations and aircraft in flight. Control of noise from these sources is preempted by Federal and State regulations. Control of noise from facilities of regulated public facilities is preempted by California Public Utilities Commission (CPUC) regulations. All other noise sources are subject to local regulations. Non-transportation noise sources may include industrial operations, outdoor recreation facilities, HVAC units, schools, hospitals, commercial land uses, other outdoor land use, etc.

Source: El Dorado County 1996

Community Ambient Noise Degradation

In addition to the criteria discussed above, another consideration in defining impact criteria is based on the degradation of the existing noise environment. Appendix G of the State CEQA Guidelines states that a project would normally have a significant effect on the environment if it increases substantially the ambient noise levels for adjoining areas.

In community noise assessments, noise effects are "generally not significant" if no noise-sensitive sites are located in the project area, or if increases in community noise levels with the implementation of the project are expected to be 3 dBA or less at noise-sensitive locations, and the proposed project would not result in violations of local ordinances or standards. Noise-sensitive sites include residences, motels, hotels, public meeting rooms, auditoriums, schools, churches, libraries, hospitals, amphitheaters, parks, and other areas where quiet is essential.

If the increase in noise exposure level is greater than 3 dBA, the significance of impact will depend on the ambient noise level and the presence of noise-sensitive sites. Noise impacts are "possibly significant" if increases in noise exposure levels are expected to be greater than 5 dBA with implementation of the project. Noise impacts are "generally significant" if the proposed project will cause noise standards or ordinances to be exceeded, or increases in the community noise levels by 6 dBA or more in built-up areas, or increases by 10 dBA or more in rural areas. CNEL is used in this report for arterial/highway traffic generated noise assessment.

Existing Background Noise

Noise-sensitive land uses were identified in the vicinity of the project site. These land uses include single-family residences north of the project site (Springfield Meadows) and El Dorado Hills Business Park uses east of the project site. Other surrounding land uses include agricultural to the west, the Wetsel-Oviatt lumber mill to the south, and the Southern Pacific Railroad (SPRR) tracks to the southwest. The El Dorado Hills Wastewater Treatment Plant (EDHWTP) is located approximately one-half mile east of the project site.

Traffic Noise

The noise environment in the project vicinity is determined primarily by traffic on adjacent roadways. The existing traffic noise levels were calculated for traffic along roadway segments in the project study area with the Federal Highway Administration's Highway Noise Prediction Model, FHWA-RD-77-108 (December 1978). The calculations are reproduced in Appendix D. Model input data included average daily traffic levels, day/night percentages of autos, medium and heavy trucks, vehicle speeds, ground attenuation factors, and roadway widths. Table 4.7-3 lists the calculated distance from the roadway centerline to the existing CNEL levels (in dBA) at these segments of the roadway and the CNEL value at 50 feet from the centerline of the near travel lane for existing roadways in the project vicinity. The roadway noise levels presented assume no natural or man-made shielding between the roadway and the noise receptor.

As presented in Table 4.7-3, existing traffic noise levels in the project vicinity are generally moderate. The calculated 60 dBA CNEL contours do not extend beyond 50 feet from the roadway centerline along two segments of White Rock Road (west of the proposed project access and east of Latrobe Road). The calculated 65 dBA CNEL contours extend beyond 50 feet from the roadway centerline along El Dorado Hills Boulevard north of U.S. Highway 50 and along Latrobe Road from U.S. Highway 50 to Golden Foothill Parkway South. Along U.S. Highway 50, the 70 dBA CNEL contours extend approximately 140 feet from the roadway centerline in the vicinity of the El Dorado Hills Boulevard interchange.

TABLE 4.7-3
EXISTING ROADWAY NOISE LEVELS

ROADWAY SEGMENT	DISTANCE FROM ROADWAY CENTERLINE TO CNEL (feet) [1]			CNEL 50 FT FROM CENTERLINE OF NEAR TRAVEL LANE
	70 CNEL	65 CNEL	60 CNEL	
El Dorado Hills Boulevard				
north of U.S. Highway 50	< 50 [2]	145	455	68.4
Latrobe Road				
U.S. Highway 50 to White Rock Road	< 50 [2]	73	225	65.3
White Rock to Golden Foothill (N)	< 50 [2]	63	197	65.5
Golden Foothill (N) to Gldn Foothill (S)	< 50 [2]	57	181	65.1
south of Golden Foothill (S)	< 50 [2]	< 50 [2]	51	59.3
White Rock Road				
west of project access	< 50 [2]	< 50 [2]	< 50 [2]	59.3
project access to Latrobe Road	< 50 [2]	< 50 [2]	54	59.8
east of Latrobe Road	< 50 [2]	< 50 [2]	< 50 [2]	56.9
U.S. Highway 50				
west of El Dorado Hills Boulevard	142	299	642	74.1
east of El Dorado Hills Boulevard	137	289	620	73.8

[1] Does not consider any obstructions to the noise path.
[2] Traffic noise levels within 50 feet of the roadway centerline calculated with this model are within the margin of error.

Source: Michael Brandman Associates 1995

Railroad Noise

The SPRR tracks that border the project site to the south are not currently in use (El Dorado County 1994).

Noise Measurements at Sensitive Receptors

An ambient noise survey was conducted at six representative locations on and adjacent to the project site on January 31, 1995. The most significant noise sources during the measurement periods were

automobile and truck traffic on local roadways. Water movement of Carson Creek, and operation of distant agricultural and industrial uses also contributed to the ambient noise levels monitored. All noise measurements were made following procedures outlined in the FHWA manual "Sound Procedures for Measuring Highway Noise: Final Report" DP-45-1R (August 1981). Results of the measurements are presented in Table 4.7-4 and are discussed below.

The measured 15-minute ambient noise levels (L_{eq}) at the six sites generally ranged from low to moderate depending on the site's proximity to roadways and industrial uses. Traffic noise from White Rock Road was sometimes loud due to occasional truck traffic.

TABLE 4.7-4
EXISTING MEASURED AMBIENT NOISE LEVELS, dBA, PROJECT VICINITY

LOCATION	TIME	L_{eq}	L_{max}	NOISE SOURCES
Northwest corner of White Rock Road and Manchester Lane intersection, approximately 10 yards west of intersection.	7:20 a.m. to 7:35 a.m.	52.6	88.3	traffic along White Rock Road
Project site near intersection of Carson Creek and Golden Foothill Parkway, approximately 5 yards south of roadway. Northeastern corner of proposed R(7) area.	7:55 a.m. to 8:10 a.m.	45.9	75.0	creek, occasional traffic, songbirds
Eastern portion of project site near Hillcrest Circle, adjacent to Rippey Corporation building. Eastern edge of proposed R(10) area.	8:15 a.m. to 8:30 a.m.	47.4	52.3	employee vehicles, distant waterfowl on creek
Project site approximately 10 yards west of Suncast Drive spur. Eastern edge of proposed R(3) area.	8:50 a.m. to 9:05 a.m.	45.0	87.3	birds, distant business park traffic, distant cattle, farmers on ATVs, distant leaf blowers
Southwestern portion of project site near creek tributary convergence and SPRR. Southern tip of proposed R(17) area.	10:15 a.m. to 10:30 a.m.	48.0	90.5	nearby creek, songbirds
Southern portion of project site. The southern tip of proposed R(11) area.	10:40 a.m. to 10:55 a.m.	38.3	89.8	Wetsel-Oviatt mill, logging trucks, creek

Source: Michael Brandman Associates 1995

4.7.2 ENVIRONMENTAL IMPACTS

The potential noise effects of the project to adjacent areas can be divided into short-term and long-term impacts. Short-term impacts would be due to noise generated by equipment during the construction phase. Long-term impacts would be associated with future project-related traffic noise and project-associated stationary and operational noise impacts to the adjacent area.

THRESHOLDS OF SIGNIFICANCE

A project is considered to result in a significant short-term construction noise impact if the project substantially increases the ambient noise levels for adjoining areas.

To assess long-term noise impacts, noise criteria for transportation and non-transportation sources specified in the Public Health and Safety Element of the El Dorado County General Plan and the noise increase in existing noise exposure are evaluated. Appendix G of the State CEQA Guidelines states that a project would normally have a significant effect on the environment if it increases substantially the ambient noise levels for adjoining areas. A project is considered to result in a significant long-term operational noise impact if the project results in one of the following:

- If a project would result in a noise increase of greater than 3 dBA in an offsite area that currently exceeds the County's noise criteria identified in Tables 4.7-1 and 4.7-2.
- If a project would result in a noise increase in an offsite area that currently does not exceed the County's noise criteria; however, with the implementation of the project, the County's noise criteria would be exceeded.
- If a project would result in a noise increase of greater than 5 dBA in an offsite area that would not exceed the County's noise criteria after project implementation.
- If a project would be exposed to noise levels that exceed the County's noise criteria.

SHORT-TERM NOISE IMPACTS

IMPACT 4.7-1: SHORT-TERM CONSTRUCTION NOISE IMPACTS. CONSTRUCTION ACTIVITIES IN THE EUER RANCH PORTION OF THE PROJECT SITE COULD POTENTIALLY CAUSE SHORT-TERM SIGNIFICANT NOISE IMPACTS TO RESIDENCES NORTH OF THE PROJECT SITE. ALTHOUGH IT WOULD BE TEMPORARY AND INTERMITTENT, CONSTRUCTION NOISE WOULD BE CONSIDERED A SIGNIFICANT SHORT-TERM IMPACT.

The principal short-term noise impact associated with the proposed project would occur during construction activities. Construction noise results in relatively sporadic, rather than continuous, impact on ambient noise levels in and around developing portions of the Specific Plan. Construction under the

Specific Plan would take place over approximately 15 years and would occur in stages, each of which has its own mix of equipment and, consequently, its own noise characteristics. During construction stages, the character of noise levels surrounding the developing sites would change as work progresses. Despite the variety in type and size of construction equipment, similarities in the dominant noise sources and patterns of operation would occur.

Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. The U.S. Environmental Protection Agency (EPA) has found that the noisiest equipment types operating at construction sites typically range from 88 dBA to 91 dBA at 50 feet. Typical operating cycles may involve 2 minutes of full power, followed by 3 or 4 minutes at lower settings. Although noise ranges were found by EPA to be similar for all construction phases, the erection phase tended to be less noisy. Peak noise levels vary from 79 dBA to 88 dBA at 50 feet during the erection phase of construction. Table 4.7-5 lists noise levels generated by typical construction equipment at a distance of 50 feet and the suggested sound levels for analysis.

Noise from localized point sources (such as construction sites) typically falls off by about 6 dBA with each doubling of distance from source to receptor. Outdoor receptors within 100 feet of construction sites, such as the nearest residences north of the project site that have an uninterrupted view of the construction would, therefore, experience noise greater than 82 dBA when noise exceeds 88 dBA. Construction noise could cause short-term significant impacts to these nearest residences, because construction noise could exceed the County's 70 dBA L_{max} standard for non-transportation noise during daytime hours and could contribute to hourly average noise levels that exceed the 55 dBA L_{eq} standard. Consequently, construction noise would be considered a significant short-term impact.

LONG-TERM NOISE IMPACTS

IMPACT 4.7-2: INCREASED TRAFFIC NOISE. TRAFFIC NOISE IMPACTS AT EXISTING NOISE-SENSITIVE RECEPTOR LOCATIONS ARE ANTICIPATED. THE INCREASED TRAFFIC NOISE LEVELS COULD RESULT IN EXCEEDANCES OF THE 60 dBA CNEL RESIDENTIAL STANDARD AT EXISTING OFFSITE AND PROPOSED ONSITE RESIDENTIAL USES. THEREFORE, A SIGNIFICANT IMPACT WOULD BE ANTICIPATED.

Implementation of the proposed project would introduce new noise sources to the project vicinity and increase the noise levels along affected existing arterials and to the ambient environment. As described previously, existing ambient noise levels in the project vicinity are moderate; therefore, project-related increases in ambient noise levels may be noticeable by sensitive receptors.

TABLE 4.7-5 NOISE LEVELS GENERATED BY TYPICAL CONSTRUCTION EQUIPMENT		
TYPE OF EQUIPMENT	RANGE OF SOUND LEVELS	SUGGESTED SOUND LEVELS FOR ANALYSIS
	(dBA at 50 feet)	
Jack Hammer	75 - 85	82
Pneumatic Tools	78 - 88	85
Pumps	68 - 80	77
Dozer	85 - 90	88
Tractor	77 - 82	80
Front-End Loader	86 - 90	88
Hydraulic Backhoe	81 - 90	86
Hydraulic Excavator	81 - 90	86
Grader	79 - 89	86
Air Compressor	76 - 86	86
Truck	81 - 87	86
Source: Noise Control for Buildings and Manufacturing Plants, BBN Layman Miller Lecture Notes 1987		

Table 4.7-6 presents projected existing-plus-project distances to the 60, 65 and 70 dBA CNEL contours for affected roadway segments in the project area. As in the analysis of the existing conditions, the existing-plus-project, traffic-generated noise impact levels were calculated using the Federal Highway Administration's Highway Traffic Noise Prediction Model (see Appendix D). The roadway noise levels presented in the table represent worst-case potential noise exposures, which assume no natural or man-made shielding between the roadway and the noise receptor.

Data in Table 4.7-6 indicate that 6 of the 10 modeled offsite roadway segments would experience traffic noise level increases of 3 dBA or greater from buildout of the proposed Specific Plan. These traffic noise increases would be noticeable to the typical listener. Data in Table 4.7-6 further shows that the highest project-related noise level increase would be 8.6 dBA along White Rock Road between the proposed project access and Latrobe Road, where the 65 dBA CNEL contour would be extend approximately 150 feet from the roadway centerline. Consequently, existing and planned future single-family residential uses located across White Rock Road to the north of the project site could experience outdoor noise levels in excess of the County's 60 dBA CNEL standard for residential uses. Projected traffic noise levels along Latrobe Road would increase from 5.3 to 6.6 dBA with Specific Plan buildout. Traffic noise levels along El Dorado Hills Boulevard north of U.S. Highway 50 are projected to increase by approximately 2.5 dBA

TABLE 4.7-6
EXISTING WITH PROJECT TRAFFIC NOISE LEVELS

ROADWAY SEGMENT	DISTANCE FROM ROADWAY CENTERLINE TO CNEL (feet)[1]			CNEL 50 FT FROM CENTERLINE OF NEAR TRAVEL LANE	INCREASE OVER NO-PROJECT LEVELS, dBA
	70 CNEL	65 CNEL	60 CNEL		
El Dorado Hills Boulevard					
north of U.S. Highway 50	83	257	810	70.9	2.5
Latrobe Road					
U.S. Hwy 50 to White Rock Rd	104	324	1,024	71.9	6.6
White Rock to Gldn Foothill (N)	68	214	676	70.8	5.3
Gldn Fthl (N) to Gldn Fthl (S)	66	208	659	70.7	5.6
south of Golden Foothill (S)	< 50[2]	63	136	65.8	6.5
White Rock Road					
west of project access	< 50[2]	56	119	65.0	5.7
project access to Latrobe Rd	< 50[2]	123	387	68.4	8.6
east of Latrobe Road	< 50[2]	< 50[2]	< 50[2]	58.4	1.5
U.S. Highway 50					
west of El Dorado Hills Blvd	153	324	696	74.6	0.5
east of El Dorado Hills Blvd	158	335	720	74.8	1.0

[1] Does not consider any obstructions to the noise path.
[2] Traffic noise levels within 50 feet of the roadway centerline calculated with this model are within the margin of error.

Source: Michael Brandman Associates 1995

with the addition of project traffic. Traffic noise levels along U.S. Highway 50 and along White Rock Road east of Latrobe Road, are expected to increase by 1 dBA or less with project implementation. Because 6 of the 10 modeled segments would experience traffic noise level increases of 3 dBA or greater with buildout of the Specific Plan, offsite traffic noise impacts would be significant.

In addition to offsite traffic noise impacts, potential noise impacts on the project site would be generated by vehicular traffic along White Rock Road. As stated above, the 65 dBA CNEL contour would extend more than 50 feet from the roadway centerline along White Rock Road. Proposed residential uses adjacent to and south of White Rock Road could experience outdoor noise levels in excess of the County's

60 dBA CNEL standard. Therefore, significant traffic noise impacts to onsite noise-sensitive uses would be anticipated.

IMPACT 4.7-3: RAILROAD NOISE. IMPLEMENTATION OF THE PROPOSED SPECIFIC PLAN COULD ALLOW FOR THE ESTABLISHMENT OF FUTURE LIGHT RAIL SERVICE TO THE PROJECT SITE. RAILROAD NOISE COULD EXCEED THE 60 dBA CNEL STANDARD RECOMMENDED BY EL DORADO COUNTY FOR TRANSPORTATION NOISE EXPOSURE AT PROPOSED RESIDENTIAL UNITS R(10), WHICH WOULD BE ADJACENT TO THE SPRR TRACKS. THIS WOULD BE CONSIDERED A POTENTIALLY SIGNIFICANT IMPACT.

As discussed previously in this section, no rail service currently exists along the SPRR track adjacent to the project site. The proposed Specific Plan would allow for the construction of a mass transit station and park-and-ride lot at the southern portion of the project site. However, it is not known whether the extension of light rail service to the project site would actually occur. Assuming light rail service would be extended to the project site at some point in the future, proposed residential units R(10), which would be adjacent to the SPRR tracks, could be exposed to railroad noise in excess of the County's 60 dBA CNEL standard for transportation noise. This would be considered a potentially significant impact.

IMPACT 4.7-4: STATIONARY SOURCE NOISE. NOISE GENERATED BY PROPOSED COMMERCIAL AND RESEARCH AND DEVELOPMENT USES ON THE PROJECT SITE AND BY EXISTING AND PROPOSED USES AT THE ADJACENT EL DORADO HILLS BUSINESS PARK COULD CAUSE EXCEEDANCES OF THE EL DORADO COUNTY STANDARDS FOR NON-TRANSPORTATION NOISE EXPOSURE AT PROPOSED ONSITE RESIDENTIAL USES. THIS WOULD BE CONSIDERED A POTENTIALLY SIGNIFICANT PROJECT IMPACT.

Buildout of the proposed Specific Plan could result in an increase in stationary noise sources on the project site. Noise associated with the operation of proposed local commercial and research and development uses would occur primarily during daytime hours and could result in increases over existing noise levels. Sufficient data regarding the number and type of commercial and research and development uses are not available at present to determine the particular noise impact potential attributable to such uses. Although no industrial uses are proposed on the project site, stationary source noise levels could exceed the County's 55 dBA L_{eq} and 70 dBA L_{max} daytime noise standards for non-transportation noise exposure at proposed onsite residential uses that are adjacent to proposed commercial or research and development uses. Therefore, noise impacts to proposed onsite residences from proposed onsite stationary sources could be significant.

Proposed onsite residences would also be exposed to stationary source noise from adjacent offsite El Dorado Hills Business Park and EDHWTP operations. Stationary source noise from the EDHWTP, which would be located approximately 3,000 feet east of the nearest proposed residential uses onsite, are not expected to exceed County standards at proposed onsite residential uses. Although current El Dorado Hills Business Park noise levels do not appear to exceed the County's daytime noise standards (see Table

4.7-3), future development in the El Dorado Hills Business Park could result in noise exposure in excess of the County's 55 dBA L_{eq} and 70 dBA L_{max} standards at proposed onsite residential uses that are adjacent to the El Dorado Hills Business Park. Noise impacts to proposed onsite residences from existing and future offsite stationary noise sources within the El Dorado Hills Business Park would, therefore, be potentially significant.

Existing and proposed offsite residences north of the project site are located across White Rock Road from the project site and would probably not experience noise levels from proposed onsite commercial, business park, and industrial uses that exceeds County standards for non-transportation noise exposure. Noise generated by stationary sources onsite would likely be overshadowed by traffic noise along White Rock Road. Significant stationary noise impacts to offsite residences are, therefore, not anticipated.

4.7.3 MITIGATION MEASURES

Mitigation measures are provided below to reduce significant or potentially significant noise impacts of the proposed project to the extent feasible. As discussed in Section 4.1 (Introduction to Environmental Analysis), mitigation measures are numbered corresponding to the number of the impact to be mitigated.

MITIGATION MEASURE 4.7-1: SHORT-TERM CONSTRUCTION NOISE

Construction activities shall be conducted in accordance with the County noise regulation or limited to the following hours and days:

- Between the hours of 7:00 a.m. and 7:00 p.m. on any weekday
- Between the hours of 8:00 a.m. and 6:00 p.m. on Saturdays
- Prohibited on Sundays and holidays

At the time of the letting of the construction contract, it shall be demonstrated that engine noise from excavation equipment would be mitigated by keeping engine doors closed during equipment operation. For equipment that cannot be enclosed behind doors, lead curtains shall be used to attenuate noise.

MITIGATION MEASURE 4.7-2: INCREASED TRAFFIC NOISE

Where the development of a project could result in the exposure of noise-sensitive land uses to existing or projected future traffic noise levels in excess of the applicable County noise standards, the County shall require an acoustical analysis to be performed prior to the approval of such projects.

Where acoustical analysis determines that the project would contribute to traffic noise levels in excess of applicable County noise standards at proposed onsite or planned future offsite noise sensitive uses, the County shall require the implementation of noise attenuation measures, such as setbacks, sound barrier walls, or noise berms, as necessary to reduce traffic noise levels at proposed noise sensitive uses to conform with the applicable County standards.

MITIGATION MEASURE 4.7-3: RAILROAD NOISE

Where the development of a project could result in the exposure of noise-sensitive land uses to projected future railroad noise levels in excess of the applicable County noise standards, the County shall require an acoustical analysis to be performed prior to the approval of such projects.

Where acoustical analysis determines that railroad noise levels would exceed applicable County noise standards at proposed onsite noise sensitive uses, the County shall require the implementation of noise attenuation measures, such as setbacks, sound barrier walls, or noise berms, as necessary to reduce traffic noise levels at proposed noise sensitive uses to conform with the applicable County standards.

MITIGATION MEASURE 4.7-4: STATIONARY SOURCE NOISE

Where the development of a project could result in the exposure of onsite noise-sensitive land uses to projected onsite or offsite stationary source noise levels in excess of the applicable County noise standards, the County shall require an acoustical analysis to be performed prior to the approval of such projects.

Where acoustical analysis determines that stationary source noise levels would exceed applicable County noise standards at proposed onsite noise sensitive uses, the County shall require the implementation of noise attenuation measures, such as setbacks, sound barrier walls, or noise berms, as necessary to reduce traffic noise levels at proposed noise sensitive uses to conform with the applicable County standards.

4.7.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

After implementation of the above mitigation measures, noise impacts would be considered less than significant.

4.8 BIOLOGICAL RESOURCES

Discussed within this section are general and special-status biological resources that occur or potentially occur onsite. Also presented are impacts anticipated with implementation of the proposed project and any necessary mitigation measures designed to reduce significant impacts to a less-than-significant level.

At times, the Carson Creek Specific Plan area has been described as two separate properties. Until recently, the 548-acre southern portion was referred to as Carson Creek Ranch and the northern 162-acre property was referred to as Euer Ranch. Some of the information cited in this section refers to either Carson Creek Ranch or Euer Ranch because separate biological studies were completed for the two portions of the project site.

4.8.1 ENVIRONMENTAL SETTING

METHODOLOGY

Michael Brandman Associates (MBA) staff independently reviewed all previously prepared biological studies relevant to the project site for technical adequacy, including the following documents: *Carson Creek Ranch Vegetation and Wildlife Resources* (PAR and Associates 1988), *Wetland Delineation and Special-Status Species Assessment For Euer Ranch* (Sugnet and Associates 1995), *Wetland Preservation and Compensation Plan for the Carson Creek Project, Regulatory Number 19890080* (Sugnet and Associates 1994), *Nationwide Permit 26 Request Project Information and Mitigation Plan* (Huffman and Associates 1989), and *Special-Status Species Reports for the Carson Creek Ranch Property* (HLA 1991 and 1992). A reconnaissance-level survey of the entire site was conducted by MBA biologists, on February 5, 1995 to verify and update the information in the documents referenced above. Information deemed technically adequate in these documents is used in this EIR analysis and referenced as appropriate.

To obtain more information on sensitive species that have occurred in the vicinity of the project site, the following on-line data bases were also searched: the California Department of Fish and Game's (CDFG) *California Natural Diversity Data Base* (CNDDB or *RareFind*), the *Wildlife Habitat Relationships* (WHR) system, and the California Native Plant Society's (CNPS) electronic *Inventory of Rare and Endangered Vascular Plants*.

GENERAL BIOLOGICAL RESOURCES

The 710-acre project site, which is currently used for grazing, supports four habitat types: non-native annual grassland, freshwater drainages, seasonal wetland, and wet pasture. Non-native annual grassland is the predominant habitat and covers all upland areas. Drainages, including Carson Creek and its intermittent tributaries, cross the site predominantly from north to south, with some tributaries along southernmost project areas actually flowing northwest. Vernal pools and other seasonal wetlands are distributed in various locations across the site. A wet pasture is located on a terrace directly east of Carson Creek in the southwest corner of the site.

Non-native Annual Grassland

Plant diversity in non-native annual grassland is relatively low, with introduced grasses being the dominant component. The most abundant plant species found onsite included soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), and wild oats (*Avena* spp.). Other common annuals found onsite were filaree (*Erodium* spp.), black mustard (*Brassica nigra*), yellow star thistle (*Centaurea solstitialis*). Except for a few oak (*Quercus* sp.) trees found near ranch buildings in the northern portion of the site, grasslands are mostly devoid of woody vegetation.

The majority of animals occurring onsite are considered "grassland species." Grasslands onsite support a number of common grassland species including savannah sparrow (*Passerculus sandwichensis*), western meadowlark (*Sturnella neglecta*), western kingbird (*Tyrannus verticalis*), coyote (*Canis latrans*), gopher snake (*Pituophis melanoleucus*), Botta's pocket gopher (*Thomomys bottae*) and western harvest mouse (*Reithrodontomys megalotis*). Grasslands also provide valuable foraging habitat for raptors such as red tailed hawk (*Buteo jamaicensis*), barn owl (*Tyto alba*), American kestrel (*Falco sparverius*), and black shouldered kite (*Elanus caeruleus*).

Freshwater Drainages

Non-native annual grasses are the dominant plant species on the banks of Carson Creek and its intermittent tributaries. Vegetation along these drainages has historically been heavily grazed (Sugnet and Associates 1993). Two small clumps of riparian vegetation, consisting of small willows (*Salix* sp.) and Fremont cottonwoods (*Populus fremontii*), occur along Carson Creek. Except for a few scattered blackberry patches, the riparian understory is nonexistent.

Carson Creek and its tributaries are used by a number of wildlife species as foraging habitat and a source of drinking water. Its highest value to wildlife is related to the use of aquatic resources of the creek

rather than the vegetation because of the lack of riparian and emergent wetland vegetation. Common wildlife species expected to frequent this freshwater channel habitat include red-winged blackbird (*Agelaius phoeniceus*), black phoebe (*Sayornis nigricans*), raccoon (*Procyon lotor*), common garter snake (*Thamnophis sirtalis*), striped skunk (*Mephitis mephitis*), and opossum (*Didelphis virginiana*). Carson Creek could also potentially support fish such as green sunfish (*Lepomis cyanellus*), bluegill (*Lepomis macrochirus*), and mosquitofish (*Gambusia affinis*).

Seasonal Wetlands

Seasonal wetland occurring onsite include vernal pools, swales, and shallow depressions that remain saturated or inundated during winter months. More than 60 shallow vernal pools, ranging in size from approximately 100 to 15,000 square feet, have been identified onsite. Common plant species found in seasonal wetlands include Vasey's coyote-thistle (*Eryngium vaseyi*), slender popcorn-flower (*Allocarya stipitatas*), buttercup (*Ranunculus bonariensis*), woolly marbles (*Psilocarphus* sp.), and Fremont's goldfields (*Lasthenia fremontii*). Seasonal wetlands onsite do not support trees, shrubs, or stands of emergent vegetation.

Seasonal wetlands are not usually considered as valuable for wildlife as perennial wetlands are, but they do attract a number species during winter and spring when they are filled with water. During spring site surveys, waterbirds such as mallard (*Anas platyrhynchos*), green-winged teal (*Anas crecca*), killdeer (*Charadrius vociferus*), and greater yellowlegs (*Tringa melanoleuca*) were found foraging and resting in seasonal wetlands. When these areas become dry they provide habitat for many wildlife species inhabiting the surrounding grasslands.

Wet Pasture

Approximately 5 acres of wet pasture occurs immediately east of Carson Creek in the southwest corner of the site. Vegetation in this area is more lush than the surrounding grasslands because soil moisture content is higher. Consequently, grazing pressure has been especially severe. Plants found in this area included bermuda grass (*Cynodon dactylon*), baltic rush (*Juncus balticus*), clover (*Trifolium* sp.), canary grass (*Phalaris* sp.), bull thistle (*Cirsium vulgaris*). No tree or shrubs are present.

Many of the wildlife species frequenting seasonal wetlands can also be expected in the wet pasture. However, the lush vegetation and moist soil offer more suitable foraging habitat for other species including black-tailed jackrabbit (*Lepus californicus*), common snipe (*Gallinago gallinago*), and red-winged blackbird (*Agelaius phoeniceus*).

SPECIAL-STATUS BIOLOGICAL RESOURCES

Discussed within this section are biological resources known to occur or potentially occur in the vicinity of the project site that have been afforded special recognition by federal, state, or local resource conservation agencies and organizations. Special-status species may also include plants and animals that have been designated as unique or of relatively limited distribution. Special-status plants and wildlife potentially occurring on the project site have been evaluated in prior documents prepared for Carson Creek Ranch (HLA 1991) and Euer Ranch (Sugnet and Associates 1995). A list of potentially occurring special-status species is presented in Table 4.8-1. Sources consulted for the classification of sensitive resources are as follows:

- **Plants** – U.S. Fish and Wildlife Service (USFWS 1990), California Department of Fish and Game (CDFG 1990), California Natural Diversity Data Base CNDDB 1994), and California Native Plant Society (CNPS – Smith and Berg 1998).
- **Wildlife** – USFWS (1990), CDFG (1990), CNDDB (1993), and Williams (1986).
- **Habitats** – CNDDB (1994) and Holland (1986).

Special-Status Plants

In 1991, HLA conducted surveys on Carson Creek Ranch for special-status plant species known to occur in El Dorado County. No sensitive plants were identified during appropriately timed surveys. No "focused" (presence/absence level of detail) have been conducted on Euer Ranch, although in 1995, Sugnet and Associates completed habitat suitability assessments for potentially-occurring special-status plants. Sugnet and Associates identified potential habitat for one special-status plant species, Bogg's Lake hedge-hyssop (*Gratiola heterosepala*). Bogg's Lake hedge-hyssop, a state-listed endangered species, occurs within vernal pools and other seasonal wetlands.

Special-Status Wildlife

Potentially occurring special-status wildlife includes three invertebrates, one amphibian, and thirteen birds. Focused surveys for those species been conducted on Carson Creek Ranch (HLA 1991; Sugnet and Associates 1992), and habitat suitability assessments were completed on Euer Ranch (Sugnet and Associates 1995).

TABLE 4.8-1
SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING ON THE CARSON CREEK SPECIFIC PLAN PROJECT SITE

SPECIES	USFWS	CDFG	HABITAT	POTENTIAL FOR OCCURRENCE
PLANTS				
BOGGS LAKE HEDGE-HYSSOP (*Gratiola heterosepala*)	--	CE	vernal pools	California Possible; suitable habitat present
WILDLIFE				
CONSERVANCY FAIRY SHRIMP (*Branchinecta conservatio*)	FE	--	vernal pools	Unlikely; marginal habitat onsite.
VERNAL POOL FAIRY SHRIMP (*Branchinecta lynchi*)	FT	--	vernal pools	Unlikely; marginal habitat onsite.
VERNAL POOL TADPOLE SHRIMP (*Lepidurus packardi*)	FE	--	vernal pools	Unlikely; marginal habitat onsite.
WESTERN SPADEFOOT (*Scaphiopus hammondii*)	--	CSC	vernal pools grassland	Possible; suitable habitat present
NORTHERN HARRIER (*Circus cyaneus*)	--	CSC	marsh, grassland	Likely resident; suitable nesting habitat present.
SHARP-SHINNED HAWK (*Accipiter striatus*)	--	CSC	woodland	Likely winter visitor; no suitable nesting habitat.
COOPER'S HAWK (*Accipiter cooperii*)	--	CSC	woodland	Likely winter visitor; no suitable nesting habitat.
FERRUGINOUS HAWK (*Buteo regalis*)	--	CSC	grassland	Likely winter visitor; no suitable nesting habitat.
GOLDEN EAGLE (*Aguila chrysaetos*)	--	CSC	grassland	Possible winter visitor, no suitable nesting habitat.
MERLIN (*Falco columbarius*)	--	CSC	grassland	Likely winter visitor; no suitable nesting habitat.
PRAIRIE FALCON (*Falco mexicanus*)	--	CSC	grassland	Likely winter visitor; no suitable nesting habitat.
MOUNTAIN PLOVER (*Charadrius montanus*)	--	SC	grassland	Possible winter visitor; no suitable nesting habitat.
LONG-BILLED CURLEW (*Numenius americanus*)	--	CSC	grassland	Possible winter visitor; no suitable nesting habitat.
BURROWING OWL (*Athene cunicularia*)	--	CSC	grassland	Likely resident; suitable nesting habitat present.
SHORT-EARED OWL (*Asio flammeus*)	--	CSC	marsh, grassland	Possible winter visitor; no suitable nesting habitat.
LOGGERHEAD SHRIKE (*Lanius ludovicianus*)	--	CSC	grassland, woodland	Likely resident; suitable nesting habitat present.

TABLE 4.8-1
SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING ON THE CARSON CREEK SPECIFIC PLAN PROJECT SITE

SPECIES	USFWS	CDFG	HABITAT	POTENTIAL FOR OCCURRENCE
TRICOLORED BLACKBIRD (*Agelaius tricolor*)	--	CSC	freshwater marsh	Possible; no suitable nesting habitat.

U.S. Fish and Wildlife Service (USFWS) Federal Listing Categories:

FE Federal Endangered
FT Federal Threatened
PE Federal Proposed Endangered
PT Federal Proposed Threatened

California Department of Fish and Game (CDFG) State Listing Categories:

CE California Endangered
CT California Threatened
CSC California Species of Special Concern

Source: Sugnet and Associates 1995; Michael Brandman Associates 1996

All three of the potentially occurring special-status invertebrates, [Conservancy fairy shrimp (*Branchinecta conservatio*), vernal pool fairy shrimp (*Branchinecta lynchi*), and tadpole shrimp (*Lepidurus packardi*)] are federally-listed as threatened or endangered. Although these species are endemic to the Central Valley, there are no reported occurrences in El Dorado County. A fairy shrimp survey was conducted on Carson Creek Ranch during Spring 1991. Fairy shrimp were not found during this survey or during subsequent 1992 winter/spring surveys. Although no fairy shrimp surveys were conducted on the Euer Ranch, their potential for occurrence was determined to be unlikely because the ponded features at the site are in areas frequently subjected to drainage channel overflows or in steeply sloped areas (Sugnet and Associates 1995).

The project site is within the known range of the western spadefoot (*Scaphiopus hammondi*), a California Species of Special Concern by CDFG. No spadefoot toads were found during the 1992 surveys conducted on Carson Creek Ranch (Sugnet and Associates 1993). Although this species could possibly occur in low densities, it is not expected.

None of the 13 special-status birds are state- or federally-listed as threatened or endangered. Due to habitat constraints and range restrictions, only three special-status birds could potentially nest onsite: northern harrier (*Circus cyaneus*), burrowing owl (*Athene cunicularia*), and loggerhead shrike (*Lanius ludovicianus*). All three are considered Species of Special Concern by CDFG. Suitable breeding habitat for northern harrier includes emergent wetland and open grasslands. Burrowing owls typically utilize abandoned ground squirrel burrows for nest sites. Although the site is considered suitable for loggerhead shrike, the low number of trees and shrubs limit the potential for nesting. The other 10 special-status birds, all of which are California Species of Special Concern, are only expected to forage onsite. During winter months, the site provides suitable foraging habitat for six special-status raptors: sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*Accipiter cooperii*), ferruginous hawk (*Buteo regalis*), merlin (*Falco columbarius*), golden eagle (*Aquila chrysaetos*), and prairie falcon (*Falco mexicanus*). These raptors are only expected to occur infrequently or in low densities because small mammals and other prey species are not particularly abundant onsite. Other wintering special-status birds expected to forage infrequently onsite include mountain plover (*Charadrius montanus*), long-billed curlew (*Numenius americanus*), short-eared owl (*Asio flammeus*), and tricolored blackbird (*Agelaius tricolor*).

Jurisdictional Wetlands

Areas that meet the wetland criteria established by the U.S. Army Corps of Engineers (USACE) are subject to the regulatory jurisdiction of USACE, pursuant to §404 of the Federal Clean Water Act. Section 404 restricts (without prior notification of approval from USACE) placement of dredge or fill material in waters of the U.S. and other adjoining wetlands. In addition, certain wetland habitats are subject to the regulatory jurisdiction of CDFG, pursuant to §1600 of the State Fish and Game Code. Section 1600 requires that a Streambed Alteration Agreement be obtained from CDFG if impacts on streambeds, lakebeds, or their associated riparian habitats are anticipated.

Four types of wetlands, covering a total of 28.51 acres, have been delineated on the project site. Wetlands include approximately 3.18 acres of vernal pools, 7.78 acres of seasonal wetland, 12.6 acres of drainages (Carson Creek and its intermittent tributaries), and 4.95 acres of wet pasture. A wetland delineation conducted on Carson Creek Ranch by Huffman and Associates, and subsequently updated by HLA and Sugnet and Associates, has been reviewed and verified by USACE. Sugnet and Associates has also recently conducted a wetland delineation on Euer Ranch. This delineation requires verification by USACE before precise acreage can be determined.

Objective 7.3.3: Wetlands - Protection of natural and man-made wetlands, vernal pools, wet meadows, and riparian areas from impacts related to development for their importance to wildlife habitat, water purification, scenic values, and unique and sensitive plant life.

Policy 7.3.3.2

All feasible project modification shall be considered to avoid wetland disturbance. Direct or indirect losses of wetlands and/or riparian vegetation associated with discretionary application approval shall be compensated by replacement, rehabilitation, or wetlands habitat on a no-net loss basis. Compensation may result in provision of wetlands habitat on- or off-site at a minimum of a 1:1 ratio as associated with the disturbed resource. A wetland study and mitigation monitoring program shall be submitted to the County and concerned State and Federal agencies for approval prior to permit approval.

Objective 7.3.4: Drainage - Protection and utilization of natural drainage patterns.

Policy 7.3.4.1

Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.

Policy 7.3.4.2

Modification of natural stream beds and flow shall be regulated to ensure that adequate mitigation measures are utilized.

Objective 7.4.1: Rare, Threatened and Endangered Species - The County shall protect State and Federally recognized rare, threatened, or endangered species and their habitats consistent with Federal and State laws.

Objective 7.4.2: Identify and Protect Resources - Identification and protection, where feasible, of critical fish and wildlife habitat including deer winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.

Policy 7.4.2.2

Where critical wildlife areas and migration corridors are identified during review of projects, the County shall protect the resources from degradation by requiring all portions of the project site that contain or influence said areas to be retained as non-disturbed natural areas through mandatory clustered development on suitable portions of the project site or other means such as density transfers if clustering cannot be achieved. The setback distance for designated or protected migration corridors shall be determined as part of the project's environmental analysis. The intent and emphasis of Open Space land use designation and of the non-disturbance policy is to ensure continued viability of contiguous or interdependent habitat areas and the preservation of all movement corridors between related habitats. The intent of mandatory clustering is to provide a

mechanism for natural resource protection while allowing appropriate development of private property.

Objective 7.4.3.: Coordination with Appropriate Agencies - Coordination of wildlife and vegetation protection programs with appropriate Federal and State agencies.

Objective 7.6.1: Importance of Open Space - Consideration of open space as an important factor in the County's quality of life.

Policy 7.6.1.2

The County will provide for Open Space land through:

A. The designation of land as Open Space;

B. The designation of land for low-intensity land uses as provided in the Rural Residential and Natural Resource land use designations;

C. Local implementation of the Federal Emergency Management Agency's National Flood Insurance Program;

D. Local implementation of the State Land Conservation Act Program; and

E. Open space land set aside through Planned Developments (PDs).

Policy 7.6.1.3

The County shall implement Policy 7.6.1.1. through zoning regulations and the administration thereof. It is intended that certain districts and certain requirements in zoning regulations carry out the purposes set forth in Policy 7.6.1.1 as follows:

[other provisions omitted]

C. Zoning regulation shall provide for setbacks from all flood plains, streams, lakes, rivers and canals to maintain Purposes A, B, C, and D set forth in Policy 7.6.1.1.

4.8.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Significant impacts that could occur to biological resources with implementation of the proposed Specific Plan were determined from criteria in the California Environmental Quality Act (CEQA) Guidelines. Appendix G of State CEQA Guidelines states that a project will normally have a significant impact on biological resources if it will:

- Substantially affect a rare or endangered species of plant or animal or the habitat of such species;

- interfere substantially with the movement of any resident or migratory fish or wildlife species; or
- substantially diminish habitat for fish, wildlife, or plants.

State CEQA Guidelines §15065(a) states that a project may have a significant effect on the environment when "the project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal." Other significant impacts could include those that would conflict with local, state, or federal resource conservation plans, goals, or regulations. Due to the continued loss of oak woodlands and wetlands locally and statewide, removal or degradation of these habitats could be considered significant. Impacts are sometimes important locally but not considered significant (according to CEQA) when they would alter existing conditions but would not substantially diminish or result in the permanent loss of an important resource or population, either locally or statewide.

IMPACTS

IMPACT 4.8-1 HABITAT LOSS AND FRAGMENTATION. THE PROPOSED PROJECT WOULD REMOVE APPROXIMATELY 680 ACRES OF NON-NATIVE ANNUAL GRASSLAND. THIS IMPACT WOULD BE CONSIDERED LESS THAN SIGNIFICANT.

As a result of loss of habitat, wildlife now using the project site would be forced into remaining areas of open space, consequently increasing competition for available resources in those areas. This situation would likely result in the loss of individuals that cannot successfully compete. However, similar habitat in the immediate vicinity is expected to support some of the displaced wildlife and no local or regional populations of non-sensitive species would be substantially affected.

IMPACT 4.8-2: LOSS OF WETLANDS. ON CARSON CREEK RANCH, 9.14 ACRES OF THE EXISTING 27.43 ACRES OF WETLANDS WOULD BE LOST IF THE PROPOSED PROJECT IS IMPLEMENTED. THE SPECIFIC PLAN INCLUDES A WETLAND PRESERVATION AND COMPENSATION PLAN THAT INCLUDES MEASURES THAT WOULD REDUCE IMPACTS ON WETLANDS TO A LESS-THAN-SIGNIFICANT LEVEL. ON EUER RANCH, AN UNVERIFIED 1.08 ACRES OF WETLAND COULD BE LOST, ALTHOUGH THESE WETLANDS APPEAR TO FALL WITHIN AREAS OF THE PROJECT SITE PROPOSED FOR PRESERVATION. WETLANDS ON EUER RANCH ARE NOT INCLUDED UNDER THE WETLAND PRESERVATION AND COMPENSATION PLAN. ABSENT VERIFICATION, THE POSSIBLE LOSS OF WETLANDS ON EUER RANCH WOULD BE CONSIDERED A POTENTIALLY SIGNIFICANT IMPACT.

The Wetland Preservation and Compensation Plan (Sugnet and Associates 1994), designed to mitigate the 9.14 acres of wetlands that would be lost on Carson Creek Ranch has been incorporated into the proposed project (Appendix E). This plan includes construction of 8.86 of wetlands onsite and 3.56 acres of wetlands offsite. Implementation of the Wetland Preservation and Compensation Plan for Carson Creek Ranch would reduce wetland impacts on this portion of the project site to a less-than-significant level.

Approximately 1.08 acres of additional wetlands have been delineated for Euer Ranch (Sugnet and Associates 1994). Two intermittent drainages represent most (0.83 acre) of this acreage. The remaining 0.25 acre is primarily seasonal wetlands. The delineation requires verification by USACE before precise acreage can be determined. Although these wetlands appear to fall within areas of the Specific Plan proposed for preservation, until the delineation is verified it is assumed that a portion or all these wetlands could be filled. Absent verification, the loss of wetlands on the Euer Ranch portion of the project site would be considered a potentially significant project impact.

> IMPACT 4.8-3: SPECIAL-STATUS PLANTS. IMPLEMENTATION OF THE PROPOSED PROJECT COULD AFFECT POPULATIONS OF THE BOGG'S LAKE HEDGE-HYSSOP (STATE-LISTED ENDANGERED). THE LOSS OF HABITAT FOR THIS SPECIAL-STATUS PLANT WOULD BE CONSIDERED A POTENTIALLY SIGNIFICANT IMPACT.

Special-status plant species are not expected on Carson Creek Ranch; they were not detected during 1991 focused surveys. However, until focused surveys confirm the absence of Bogg's Lake hedge-hyssop on Euer Ranch, loss of habitat would be considered a potentially significant impact.

> IMPACT 4.8-4: SPECIAL-STATUS WILDLIFE. THE LOSS OF HABITAT POTENTIALLY SUPPORTING SPECIAL-STATUS WILDLIFE SPECIES IS NOT CONSIDERED A SIGNIFICANT IMPACT BECAUSE ALL OF THESE SPECIES ARE KNOWN TO OCCUR AT WIDELY SCATTERED LOCATIONS THROUGHOUT THE REGION, AND LIMITED NESTING HABITAT AND PREY WOULD PRECLUDE LARGE POPULATIONS FROM OCCURRING FREQUENTLY ONSITE.

Although no state- or federally-listed wildlife are thought to occur onsite, suitable habitat is present for several California Species of Special Concern. The site was determined to be suitable nesting habitat for northern harrier, burrowing owl, and loggerhead shrike, and suitable foraging habitat for ten other wintering and resident bird species. However, the low number of trees and shrubs limit the potential for northern harrier and loggerhead shrike. Potential burrowing owl nesting is limited by the low number of ground squirrel burrows onsite. Suitable habitat for these species is also found throughout the region. The proposed project is not expected to adversely affect the populations of any special-status wildlife species and impacts on these species would be less than significant.

IMPACT 4.8-5 WILDLIFE MOVEMENT. IMPLEMENTATION OF THE PROPOSED PROJECT WOULD PRECLUDE WILDLIFE MOVEMENT THROUGH THE SITE. HOWEVER, THE PROJECT WOULD NOT SUBSTANTIALLY AFFECT THE SEASONAL MIGRATION OR HOME RANGE PATTERNS OF DEER OR ANY OTHER WILDLIFE SPECIES. IMPACTS ON WILDLIFE MOVEMENT WOULD BE CONSIDERED LESS THAN SIGNIFICANT.

Build-out of the project site would adversely affect movement by terrestrial mammals inhabiting the site and the adjoining areas. However, the potential value of the site as a local or regional wildlife movement corridor is already limited by the surrounding residential, commercial, and industrial, development. Wildlife species tolerant of urban environments could use the Carson Creek and intermittent drainages within the southeast portion of the site as movement corridors. The project site is, however, located outside of any deer herd migration corridor identified in the El Dorado County General Plan EIR (El Dorado County 1994).

IMPACT 4.8-6: POST-CONSTRUCTION IMPACTS. POST-CONSTRUCTION IMPACTS, INCLUDING INCREASED VEHICULAR TRAFFIC, NOISE, AND POLLUTION, ARE LIKELY TO ADVERSELY AFFECT MANY WILDLIFE SPECIES. HOWEVER, THESE POTENTIAL IMPACTS WOULD NOT SIGNIFICANTLY REDUCE ANY EXISTING WILDLIFE POPULATIONS.

Following project build-out, increased vehicular traffic, noise, pollutants, and effects of development are expected to adversely affect wildlife adjacent to the project site. Mortality for wildlife species would be anticipated to occur from collisions with motor vehicle traffic. Other species would be affected by human related disturbances. In addition, night lighting would be detrimental to animals in adjacent habitats because of disruption of light-dark rhythms and reduction in the ability of nocturnal species to avoid predators. These impacts, while adverse, would not be expected to reduce any existing wildlife populations below self-sustaining levels and are not expected to substantially affect wildlife habitat.

4.8.3 MITIGATION MEASURES

The project proponent has incorporated into the development design several mitigation measures to preserve and enhance wetlands and wildlife habitat. These measures are presented in the *Wetland Preservation and Compensation Plan for the Carson Creek Project, Regulatory Number 199200105* (Sugnet and Associates 1994). The reader is encouraged to consult this document, located in Appendix E for specific details on the proposed mitigation plan. The following is a summary of provisions that are expected to preserve or enhance remaining wetlands and wildlife habitat.

- Within the boundaries of the project site, 116 acres of open space shall be set aside for preservation. This will encompass 18.29 acres of the project site's 28.51 acres of wetlands, including the Carson Creek drainage system and several isolated seasonal wetlands. A

minimum 50-foot natural, undisturbed setback buffer shall be established from the outer edge of all preserved wetlands.

- Creation of 8.86 acres of emergent marsh to mitigate for the 6.4 acres of impacts to seasonal wetlands, channels, and wet pasture (groundwater discharge area). Compensatory emergent marsh will be located adjacent to the preserved drainages, and shall be constructed so that moderate to high winter flows within the drainages spill into the marsh. Initially the emergent marsh is expected to be seasonal in nature; then, as the watershed develops, the emergent marsh will remain inundated longer and may eventually become perennial.

- Construction of 3.56 acres of new vernal pools to mitigate for the loss of 2.74 acres of impacted pools. Vernal pool mitigation shall be located offsite at Borden Ranch, approximately 20 miles south of the project site. An easement will be established at Borden Ranch to preserve the vernal pool mitigation in perpetuity.

- Compensation wetlands shall be monitored for five years to ensure successful mitigation. Monitoring is designed to ensure that compensation wetlands are functioning as expected.

In addition to the measures included in the Wetland Preservation and Compensation Plan, the following mitigation measures have been identified to ensure that project impacts are reduced to less-than-significant levels. As discussed in Section 4.1 (Introduction to Environmental Analysis), mitigation measures are numbered corresponding to the number of the impact to be mitigated.

MITIGATION MEASURE 4.8-2: LOSS OF WETLANDS.

a) Prior to issuance of a grading permit, the wetland delineation completed for the Euer Ranch shall be verified by USACE. After verification, any wetlands that would be lost or disturbed shall be replaced or rehabilitated on a "no-net-loss" basis in accordance with USACE mitigation guidelines. El Dorado County has also supported the protection of wetlands as specified in the County's General Plan under Objective 7.4.2. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods agreeable to USACE.

b) Prior to issuance of a grading permit, a Streambed Alteration Agreement shall be obtained from CDFG, pursuant to §1600 of the California Fish and Game Code, for each stream crossing and any other activities affecting the bed, bank, or associated riparian vegetation of the stream. If required, the project applicant shall coordinate with CDFG in developing appropriate mitigation, and shall abide by the conditions of any executed permits.

c) Grading activities shall incorporate appropriate erosion control measures as provided in the El Dorado County Grading Ordinance. Appropriate runoff controls such as berms, storm grates, detention basins, overflow collection areas, filtration systems, and sediment traps shall be implemented to control siltation, and the potential discharge of pollutants into drainages.

MITIGATION MEASURE 4.8-3: SPECIAL-STATUS PLANTS.

Prior to issuance of a grading permit, habitat on the Euer Ranch that is suitable to support Bogg's Lake hedge-hyssop shall be surveyed. If any significant populations of this species are found in areas proposed for development, a mitigation plan designed to result in a no-net-loss of the species shall be prepared by the project proponent and approved by USFWS. The plan may include measures such as transplantation or revegetation in protected areas onsite. Approval of this plan by USFWS and its implementation by the project proponent would reduce impacts to a less than significant level.

4.8.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the above mitigation measures would reduce impacts to biological resources to a less-than-significant level.

4.9 EARTH RESOURCES

This section has been prepared based on information provided for the project by Youngdahl & Associates, Inc. The purpose of the earth resources analysis is to evaluate the existing soil and geologic conditions pertaining to the site, and to provide an analysis of geologic and geotechnical problems which may be encountered by the project.

Information regarding topography, soil development, alluvial deposits, and bedrock characteristics were developed from research of available topographic maps, geologic and geotechnical literature, and stereoscopic aerial photographs. The potential for impact to mineral resources, land subsidence, and volcanic hazards were also addressed. Reconnaissance level geologic mapping of the site was conducted to delineate surface indications of potential geologic hazards. A search for available geologic maps was performed to provide information to delineate potential geologic hazards. The distance to known active and potentially active faults within approximately 60 miles of the project was determined and the Maximum Credible Earthquakes (MCE) generated by these faults are presented along with peak bedrock ground accelerations. The potential impacts evaluated include fault movement, liquefaction potential, landslides, differential compaction, ground rupture, ground shaking, seiches, flooding, topographic alteration, slope stability, erosion potential, unstable cut and fill slopes, collapsible and expansive soil, trench wall stability, erosion of graded areas, alteration of run off and unprotected drainage ways.

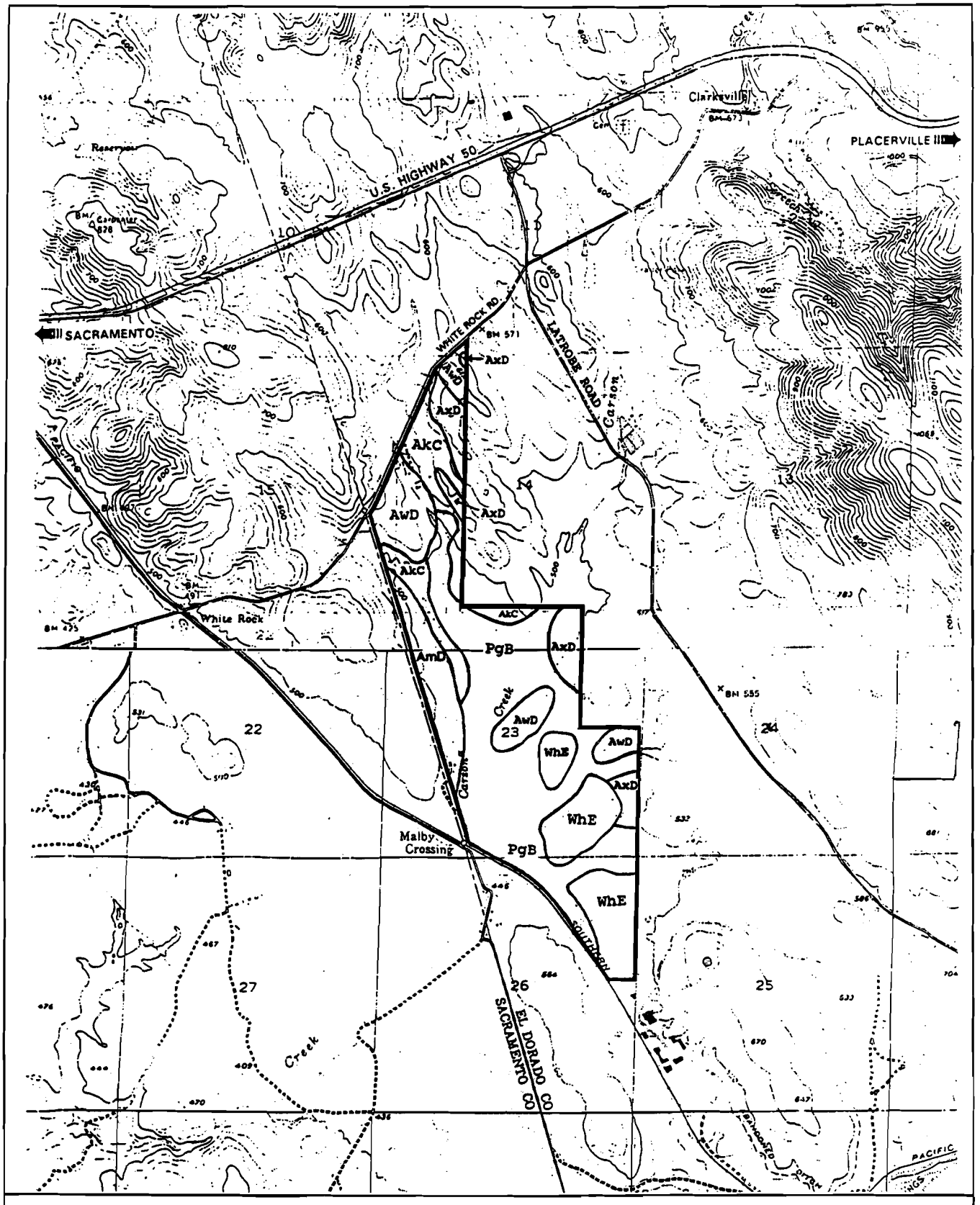
4.9.1 ENVIRONMENTAL SETTING

TOPOGRAPHY

Elevations within the project range from approximately 600 feet mean sea level (MSL) within the northern portion of the site to approximately 450 feet MSL in the southwestern portion of the project. In general, the topography of the project is fairly flat with a few low rolling hills, and gently slopes to the southwest. Carson Creek, an intermittent drainage, and several small tributary intermittent streams drain southwesterly through the central portion of the site.

SOILS

Soils across the site tend to vary in accordance with differences in parent material, drainage, and or depositional environment. The Soil Conservation Service has prepared a General Soil Map of El Dorado County, dated April 1974. The largest portion of the project site is mapped as Perkins gravelly loam. Other soils found on site include Argonaut gravelly loam, Argonaut very gravelly loam, Auburn silt loam, Auburn very rocky silt loam and Whiterock gravelly silt loam (Exhibit 4.9-1).



AkC	Argonaut gravelly loam	**AwD**	Auburn silt loam	**PgB**	Perkins gravelly loam
AmD	Argonaut very rocky loam	**AxD**	Auburn very rocky silty loam	**WhE**	Whiterock gravelly silt loam

Source: Youngdahl & Associates, Inc., February 1995

Existing Soils

EXHIBIT 4.9-1

CARSON CREEK SPECIFIC PLAN

0 1000 2000 4000 FEET

NORTH

The Soil Conservation Service attributes the following characteristics to the above mentioned soils:

Perkins gravelly loam (PgB) - 3 to 30% slopes, well drained, erosion hazard is slight to moderate, permeability is slow.

Argonaut gravelly loam (AkC) - 2 to 15% slopes, well drained, erosion hazard is slight to moderate, permeability is very slow.

Argonaut very rocky loam (AmD) - 3 to 30% slopes, well drained, erosion hazard is slight to moderate, permeability is very slow.

Auburn silt loam (AwD) - 2 to 30% slopes, well drained, erosion hazard is slight to moderate, permeability is undefined.

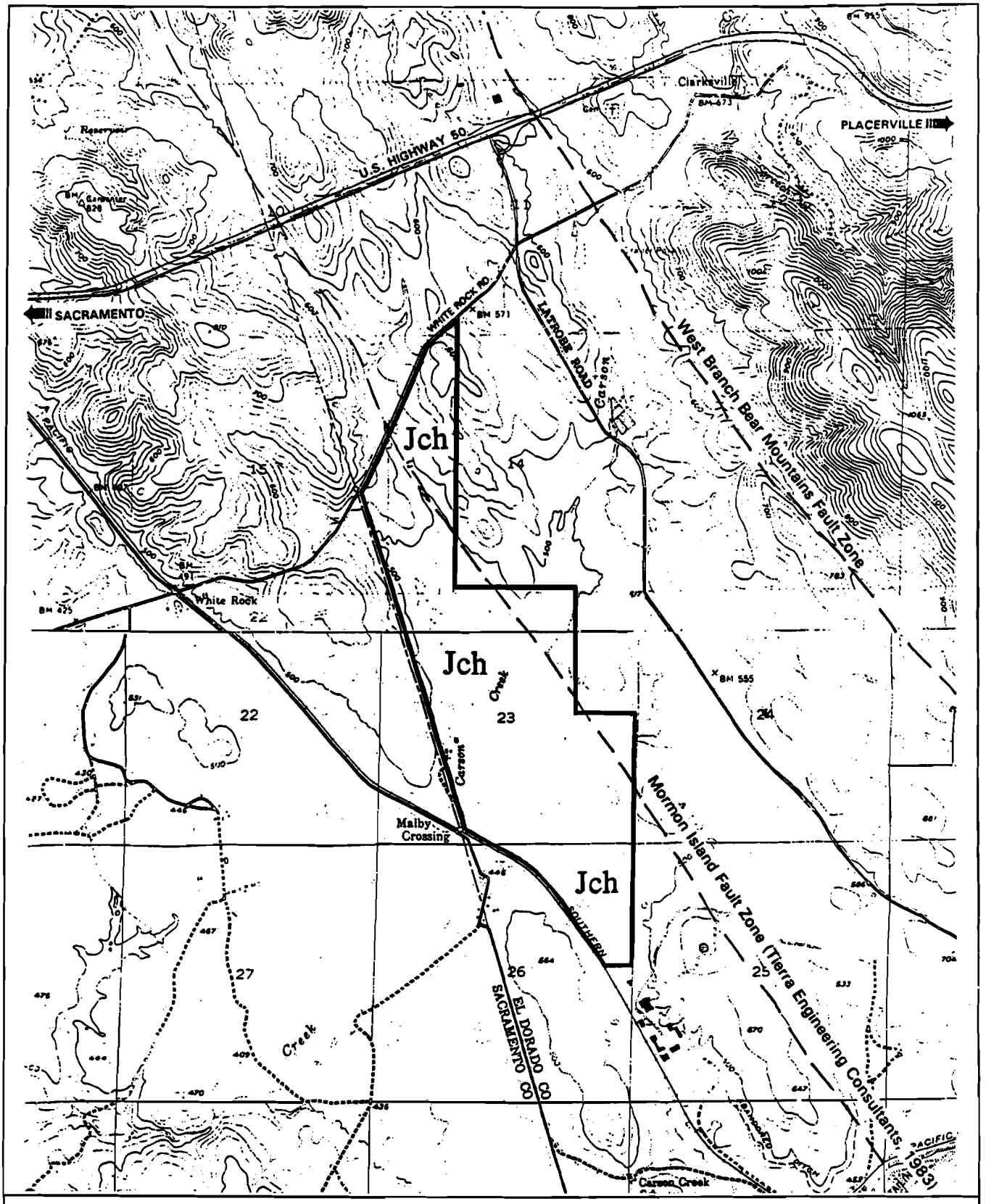
Auburn very rocky silt loam (AxD) - 30 to 50% slopes, well drained, erosion hazard is moderate to high, permeability is undefined.

Whiterock gravelly silt loam (WhE) - 3 to 50% slopes, excessively drained, erosion hazard is slight to high, permeability is moderate.

GEOLOGIC SETTING

The project site is mapped as being underlain by Mesozoic age Copper Hill Volcanics (Loyd 1984). The Copper Hill Volcanics consist of mafic to andesitic pyroclastic rocks, lava and pillow lava with subordinate porphyritic and pyroclastic rocks (Exhibit 4.9-2)

As shown in Exhibit 4.9-2, segments of the Foothills Fault System, a portion of which was historically active during the 1975, 5.7 Richter Magnitude Oroville earthquake (Cleveland Hill fault) are mapped approximately 4,000 feet to the east (West Branch Bear Mountains Fault Zone). The Mormon Island Fault Zone is mapped as trending through the northeastern portion of the property (Tierra Engineering Consultants 1983; Loyd 1984). Study of the Mormon Island Fault Zone by Tierra Engineering Consultants in 1983 concluded that at a minimum displacement has not occurred during the last 65,000 to 70,000 years and probably has not been the locus of large displacements since late Mesozoic time. Trenching performed across this fault approximately 1 mile to the south of the project did not observe bedrock shears to penetrate the overlying gravels; however, the gravels had been disturbed by placer mining operations. Due to the presence of the mining operations, the trenching that was performed did not provide conclusive evidence of the age of displacements.



Jch Copper Hill Volcanics - Mesozoic age mafic to andesitic pyroclastic rocks, lava and pillow lava with subordinate felsic porphyritic and pyroclastic rocks

— — — Fault contact approximately located

Source: Youngdahl & Associates, Inc., February 1995

Existing Geology

EXHIBIT 4.9-2

CARSON CREEK SPECIFIC PLAN

0 1000 2000 4000 FEET

NORTH

A review of the Seismicity of California Map (Goter 1988 and Real, Toppozada, and Parke 1978) reveals numerous epicenters within 60 miles of the project site. These epicenters are generally located to the east of the project within the vicinity of the eastern Sierra Nevada, and to the northwest, in the Oroville area, with a few small scattered epicenters on the Sierran eastern flank and Sacramento Valley floor.

The project area lies in central California, an area that has historically experienced relatively low seismic activity. The Foothills Fault System has been studied extensively following the 1975 Oroville Earthquake of 5.7 Richter Magnitude and is believed to be capable of generating a 6.5 Richter Magnitude earthquake with a recurrence interval of approximately 65,000 years. According to the California Division of Mines and Geology, faults which have produced earthquakes within Quaternary time (the last two to three million years) are classified as potentially active. Faults which have displaced soils younger than 11,000 years, Holocene age, are classified as active.

As shown in the Division of Mines and Geology's publication *Fault Rupture Hazard Zones in California* (Hart 1990) there are no Alquist-Priolo Special Studies Zones in El Dorado County. According to the California Division of Mines and Geology (Jennings 1992) the nearest known active fault is the Dunnigan Hills fault located approximately 40 miles to the northwest. There are other active and potentially active faults within a 60-mile radius of the project, including the Bear Mountains Fault Zone located some 4,000 feet from the site. These faults are listed in Table 4.9-1 along with their reported Maximum Credible Earthquake in Moment Magnitude and peak bedrock ground acceleration. The Mormon Island Fault Zone is located on the project site, but no ground acceleration analysis has been conducted for the fault.

The 5.7 Richter Magnitude Oroville earthquake of 1975 was considered unusual by scientists because previous studies of the Foothills Fault System had not detected seismic activity within the Holocene Epoch. Following the Oroville earthquake on the Cleveland Hill fault which is associated with the Foothills Fault System, several state and federal agencies studied the Foothills Fault System to determine the nature and extent of faulting. The Foothills Fault System is considered capable of seismic activity, but the activity is estimated to have a very long recurrence interval and a very low slip rate. Excepting the Cleveland Hill fault, located in Butte County, the Foothills Fault System has not yet been classified as active and special seismic zoning was determined not to be necessary by the California Division of Mines and Geology (Hart 1990).

Damaging earthquakes from 5.7 Richter Magnitude have occurred within the northern Foothills fault system in 1975, approximately 6.2 miles south of Oroville, and in 1909 and 1888 about 9½ miles northeast of Nevada City. From 1864 to 1869, four earthquakes, in the range of 4 to 5 Richter Magnitude, have occurred in Nevada and Sierra counties along segments of the Foothills Fault System. A Richter Magnitude 4 earthquake occurred on the Bear Mountains fault within what is now Folsom Lake

TABLE 4.9-1
ACTIVE AND POTENTIALLY ACTIVE FAULTS WITHIN A 60-MILE SITE RADIUS

FAULT	FAULT CLASSIFICATION	MAXIMUM CREDIBLE EARTHQUAKE (MOMENT MAG.)	DISTANCE AND DIRECTION FROM SITE BOUNDARY (miles)	PEAK BEDROCK GROUND ACCELERATION (g)	
				Seed & Idriss (1984)	Mualchin (1990)
Dunnigan Hills	Active	6 1/2	41, NW	0.06	0.05
Tahoe	Active	6 1/2	53, NE	0.04	0.03
Genoa	Active	7 1/4	61.5, E	0.06	0.05
Green Valley	Active	6 3/4	61.5, SW	0.05	0.04
West Branch Bear Mountains	Potentially Active	6 1/2	0.62, E	0.7	0.6
East Branch Bear Mountains	Potentially Active	6 1/2	6.2, W	0.4	0.3
Melones	Potentially Active	6 1/2	7.5, E	0.35	0.28
Coast Range Boundary	Potentially Active	7	48, SW	0.08	0.05
Slinkard Valley	Potentially Active	6 1/4	53, NE	0.03	0.02
Antioch	Potentially Active	6 3/4	55, SW	0.05	0.04
Cordelia	Potentially Active	6 1/2	61, SW	0.04	0.03

Note: The Mormon Island Fault is located on the project site and is considered potentially active. However, no ground acceleration analysis has been conducted for this fault.

Source: Mualchin and Jones 1992 and Michael Brandman Associates 1996

in 1908. Two Richter Magnitude 3 events occurred along the Melones Fault Zone: in 1950, about 12.5 miles northeast of Auburn and in 1960, about 9.3 miles southwest of Nevada City. These data suggest that portions of the Foothills Fault System are seismically active (Clark 1977).

The Foothills Fault System is well-defined, but is not appropriate for Special Study Zoning due to the lack of Holocene surface displacement, a very low slip rate (<0.005 mm/year) and long recurrence interval (Woodward Clyde 1978).

MINERAL RESOURCES

A mineral resource is a concentration of elements in a particular location in such a form that a usable mineral commodity can be extracted from the deposit.

The project site is found in a mineral resource zone (MRZ-4) classified as areas where the available data do not preclude the presence or absence of mineral deposits. There is evidence of early dredging of Carson Creek and a possible lode gold mine within the northwestern portion of the site near White Rock Road. All of the mining evidence is very old, there is no indication of production or recent activity.

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

The El Dorado County General Plan provides a goal and an objective for geologic and seismic hazards in the Public Health and Safety Element and an objective for erosion/sedimentation in the Conservation and Open Space Element. Following is a goal and objectives that are relevant to the proposed project related to earth resources.

> **Goal 6.3:** - Geologic and Seismic Hazards. Minimize the threat to life and property from seismic and geologic hazards.
>
> **Objective 6.3.2:** Countywide Seismic Hazards.
> Continue to evaluate seismic related hazards such as liquefaction, landslides, and avalanche, particularly in the Tahoe Basin.
>
> **Objective 7.1.2:** Erosion/Sedimentation.
> Minimize soil erosion and sedimentation.

GENERAL COUNTY GRADING PROCESSES

Unless specifically exempted in the El Dorado County Grading Ordinance (Grading Ordinance), development projects in El Dorado County, including projects in the proposed Carson Creek Specific Plan area, would be required to obtain a grading permit from the El Dorado County Department of Transportation (DOT). As part of the permit application process, the applicant would be required to disclose the location and nature of known or suspected soil or geologic hazard areas, as identified in a soils or geologic report. The applicant would also be required to submit a preliminary grading plan that includes existing and finished grades, cut-and-fill lines, storm drainage and flood control facilities, and plans for erosion and sediment control. Furthermore, §15.14.320 of the Grading Ordinance requires that the applicant submit a soil or geologic investigation report when the proposed grading includes a cut or fill exceeding ten feet in depth at any point; when expansive soils are present; in areas of known or

suspected geological hazards, including landslide hazards and hazards of ground failure stemming from seismically induced ground shaking; and as part of the building permit process per the Uniform Building Code. As part of the grading permit approval process, DOT may impose any condition deemed necessary to protect the health, safety, and welfare of the public, to prevent the creation of a hazard to public or private property, and to assure proper completion of the grading.

4.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

In assessing whether ultimate development of the Carson Creek Specific Plan would result in significant impacts relative to earth resources, a significant impact would be identified if the project would:

- Expose people or structure, beyond an acceptable level, to major seismic hazards.
- Permit development in areas of unsuitable and unmitigable geologic conditions.
- Create substantial erosion or otherwise diminish soils and mineral as natural resources.

For the proposed project, the above criteria are interpreted primarily in terms of whether there are existing geotechnical influences and constraints that would preclude or substantially limit future urban development within the project site or dictate land use types and boundaries substantially different from those currently proposed. Interpretation of significance thresholds includes an evaluation of whether existing geotechnical constraints can be remedied through typical engineering and construction practices (many, if not most, geotechnical characteristics such as expansive soils, unstable slopes, etc., are commonly dealt with as part of normal site/building engineering), or whether the constraint represents a hazard that is largely unmitigable (i.e., ground rupture from an active fault). Similarly, the criteria for exposure to seismic hazards are qualified to acknowledge that any new development throughout most of California is at some risk of damage from seismic activity; however, building design and construction standards establish a parameter at which such a risk is considered to be minimized and acceptable. The intent of this qualifier is not to dismiss or discount the seriousness of potential impacts from regional seismic activity, but rather to help identify uniquely significant impacts relative to the proposed project and not simply common to most of California.

To the extent that most geotechnical engineering characteristics are further investigated and addressed as part of more detailed project planning (i.e., tract map, site plans, grading and development plans), the following analysis for the Carson Creek Specific Plan will, as noted above, focus primarily on whether there are significant geotechnical constraints to development within the project site and, secondarily, on

the nature and timing of engineering studies and measures which could ensure that specific development proposals are compatible with local geotechnical influences.

IMPACTS

> IMPACT 4.9-1: LIQUEFACTION. LIQUEFACTION IS NOT LIKELY TO OCCUR WITHIN MOST OF THE PROJECT SITE DUE TO THE PRESENCE OF A THIN MANTLE OF SOIL DEVELOPED UPON FIRM BEDROCK. HOWEVER, THERE IS A LOW POTENTIAL FOR LIQUEFACTION TO OCCUR WITHIN THE CARSON CREEK DRAINAGE. THIS IMPACT WOULD BE CONSIDERED POTENTIALLY SIGNIFICANT TO USES (FLOOD CONTROL AND RECREATIONAL TRAILS) PROPOSED WITHIN THESE AREAS.

Liquefaction is the transformation of saturated granular material from a solid to a liquid caused by a rapid increase in liquid pore pressure brought about by ground shaking. Both laboratory investigations and observations of field performance have shown that the liquefaction potential of a soil deposit to earthquake motions depends on the characteristics of the soil, the initial stresses acting on the soil and the characteristics of the earthquake involved. The significant factors include: (1) Soil Type - Uniformly graded soils, fine sands, tend to liquefy more easily than coarser materials; (2) Relative Density or Void Ratio - In any given earthquake, loose soils (relative density $<70\%$) may liquefy but the same materials in a denser condition may not; (3) Initial Confining Pressure - The liquefaction potential of a soil is reduced by an increase in confining pressure; (4) Intensity of Ground Shaking - Studies of the soil behavior at Niigata in Japan indicate that extensive liquefaction occurred with ground accelerations exceeding 0.12 g; and (5) Duration of Ground Shaking - Liquefaction and sliding did not occur until about 90 seconds after the ground shaking began with the Alaska earthquake of 1964. The liquefaction potential decreases with a shorter duration of ground shaking (Seed and Idriss 1982).

The majority of the site is not likely to experience liquefaction effects due to the presence of a thin layer of soil on firm bedrock. There is a low potential for liquefaction to occur within the Carson Creek drainage. Open space uses are proposed to encompass the Carson Creek drainage areas. The proposed Specific Plan includes provisions for flood control and recreational trail improvements within the onsite open space areas. There is some (low) potential for liquefaction to occur within the Carson Creek drainage, although Standard County procedures are available to resolve these potential hazards. Until the specific measures for the grading permit are delineated, impacts related to improvements within the Carson Creek drainage areas (i.e., flood control and recreational trails) are considered to be potentially significant.

> IMPACT 4.9-2: LANDSLIDES. NO AREAS OF SUSPECTED OR POTENTIAL LANDSLIDING WERE IDENTIFIED ON THE PROJECT SITE. IMPLEMENTATION OF THE PROPOSED PROJECT WOULD RESULT IN A LESS-THAN-SIGNIFICANT IMPACT.

Mass movement or landslide refers to the downward movement of rock and soil due to gravity once they have been displaced from their normal positions.

The topography of the project site is gentle to moderate, and no indications were found to suggest the potential for landslides on or adjacent to the site.

> IMPACT 4.9-3: DIFFERENTIAL COMPACTION/SEISMIC SETTLEMENT. THE THIN SOIL MANTLE DEVELOPED ON BEDROCK OF RELATIVELY STRONG SLIGHTLY WEATHERED MATERIAL OVER MUCH OF THE SITE WOULD NOT BE PRONE TO DIFFERENTIAL COMPACTION OR SEISMIC SETTLEMENT. DIFFERENTIAL COMPACTION AND SEISMIC SETTLEMENT IS POSSIBLE, HOWEVER, WITHIN THE ONSITE DRAINAGE AREAS, WHICH WOULD BE DESIGNATED AS OPEN SPACE. THIS IMPACT WOULD BE CONSIDERED POTENTIALLY SIGNIFICANT TO PROPOSED IMPROVEMENTS (I.E., FLOOD CONTROL AND RECREATIONAL) IN THESE AREAS.

Fine-grained soil and clay are subject to seismic settlement and differential compaction. Areas underlain by low-density silts and clays associated with fluvial (river or stream) deposit areas are suspect to seismically-induced settlement. These environments include old lakes, sloughs, swamps and stream beds. The amount of compaction may range from a few inches to several feet. The potential for differential compaction is highest and occurs over the largest areas during "great" earthquakes of Richter Magnitude 8 or greater.

The soil observed at the project were sandy silts and silty and gravelly sands. Except for the project drainage areas, the project site contains a thin soil mantle developed on bedrock of relatively strong slightly weathered material. The project drainage areas (Carson Creek and its tributaries) could have deep, loose deposits of sandy silts and silty and gravelly sands that may be subject to seismic settlement and differential compaction. Improvements within the drainage areas (i.e., flood control and recreational trail improvements within the open space areas) would potentially be subject to seismic settlement and differential compaction, although Standard County procedures are available to resolve these potential effects. Untl the specific measures for the grading permit are delineated, this impact is considered to be poentially significant.

> IMPACT 4.9-4: GROUND RUPTURE. DUE TO THE PROJECT SITE'S PROXIMITY TO THE WEST BRANCH OF THE BEAR MOUNTAINS FAULT ZONE (4,000 FEET) AND THE PRESENCE OF THE MORMON ISLAND FAULT ZONE ON THE PROJECT SITE, GROUND RUPTURE ON THE PROJECT SITE IS POSSIBLE. THIS IMPACT WOULD BE CONSIDERED POTENTIALLY SIGNIFICANT.

Strong earthquakes generated along a fault system can produce ground rupture along and near the site depending on the characteristics of the earthquake and the location of the epicenter.

Given the available geologic and seismic data and due to the project site's proximity to the Bear Mountains Fault Zone, ground rupture, although unlikely, is possible within the site. This rupture would likely be associated with damaging earthquakes in the Richter Magnitude range of 5 or greater and would probably not result in major ruptures, but would be limited to sympathetic movement along discontinuities associated with joint systems, and result in minor displacements. Although displacements have not occurred along the Mormon Island Fault Zone during the last 65,000 to 70,000 years, ground rupture on the site is considered to be potential due to the presence of this fault zone. Ground rupture impacts to land uses proposed with the Specific Plan area are considered potentially significant.

IMPACT 4.9-5: GROUND SHAKING. BECAUSE THE POTENTIAL EXISTS FOR GROUND ACCELERATIONS AS HIGH AS 0.7 G FROM STRONG EARTHQUAKES ALONG THE BEAR MOUNTAINS FAULT ZONE NEAR THE PROJECT SITE, A LOW TO MODERATE POTENTIAL FOR SEVERE GROUND SHAKING EXISTS AT THE SITE. THE PRESENCE OF THE MORMON ISLAND FAULT ZONE ALSO CREATES A POTENTIAL FOR GROUND SHAKING TO OCCUR ON THE PROJECT SITE. GROUND SHAKING IMPACTS ARE CONSIDERED TO BE POTENTIALLY SIGNIFICANT.

Strong earthquakes generated along a fault system generally create ground shaking within a certain distance from the fault. In general, the area affected by ground shaking activity will be dependent on the characteristics of the earthquake and the location of the epicenter.

The site is underlain by thin soil developed upon competent bedrock and alluvial sediments. A low to moderate potential for severe ground shaking exists at the site. The Uniform Building Code classifies the site as being within the seismic region Zone 3. The minimum ground accelerations used for structure design within seismic region Zone 3 is 0.3 g. However, based on site-specific ground acceleration analyses, the results of which are shown in Table 4.9-1, the potential exists for ground accelerations as high as 0.7 g from strong earthquakes along the West Branch of the Bear Mountains Fault Zone near the project.

Due to inconclusive evidence regarding the Mormon Island Fault Zone, it is assumed that ground accelerations are also possible along this fault zone. Therefore, onsite ground shaking impacts are considered to be potentially significant.

IMPACT 4.9-6: SEICHES. THERE ARE CURRENTLY NO BODIES OF WATER ON THE SITE CAPABLE OF GENERATING A SEICHE. SEVERAL SMALL FLOOD RETENTION PONDS ARE PLANNED FOR THE PROJECT BUT BECAUSE THEY WILL BE DRY EXCEPT DURING PERIODS OF HEAVY RAINFALL THE POTENTIAL FOR SEICHE-INDUCED IMPACTS WOULD BE LESS-THAN-SIGNIFICANT.

A seiche is a periodic oscillation of a body of water whose period is determined by the resonant characteristics of the containing basin. In inland lakes, these periods usually are a few minutes long.

Losses due to flooding or dam failure are possible with extended duration of ground shaking at a frequency constructive with the period of the body of water. The potential for onsite seiche-induced impacts is considered less-than-significant.

IMPACT 4.9-7: TOPOGRAPHIC ALTERATION (GROUND STABILITY AND EROSION POTENTIAL). CONSTRUCTION ACTIVITIES RESULTING IN GROUND DISTURBANCE COULD RESULT IN A MODERATE POTENTIAL FOR GROUND INSTABILITY AND EROSION. THIS IMPACT WOULD BE CONSIDERED POTENTIALLY SIGNIFICANT.

In general, grading activities, such as those proposed for this project, especially on hillsides, can create the potential for ground instability and erosion. Gentle to moderate slopes are present on the site. The anticipated construction activities will include cut and fill slopes, and trench excavation. Subsurface conditions may be somewhat variable ranging from competent to weak. The weaker soils can be expected nearer the low-lying areas, and within a few feet of the ground surface.

Although no areas of suspected or potential ground instability or erosion were noted on the site, construction activities resulting in ground disturbance could result in a moderate potential for ground instability and erosion to occur. This would be considered a potentially significant impact.

IMPACT 4.9-8: COLLAPSIBLE AND EXPANSIVE SOIL. THE THIN MANTLE OF SOIL OVER THE MAJORITY THE SITE APPEARS TO HAVE A LOW POTENTIAL TO EXPAND OR TO COLLAPSE. PROPOSED DEVELOPMENT WITHIN THE ALLUVIAL SEDIMENTS ASSOCIATED WITH CARSON CREEK MAY BE SUBJECT TO COLLAPSIBLE OR EXPANSIVE SOIL. THIS IMPACT IS CONSIDERED TO BE POTENTIALLY SIGNIFICANT.

Soils on the majority of the site appear to have a low potential to expand or collapse due to the presence of a thin layer of soil on firm bedrock. Collapsible or expansive soil may, however, be present within the alluvial sediments associated with Carson Creek. Open space uses are proposed to encompass the Carson Creek drainage areas. The proposed Specific Plan also includes provisions for flood control and recreational trail improvements within the onsite open space areas. Collapsible or expansive soils may be present along Carson Creek, although standard County procedures are available to resolve these potential effects. Until specific meaSures for the grading permit are delineated, however, impacts on improvements within the Carson Creek drainage areas (i.e., flood control and recreational trails) could occur, and this effect is considered to be a potentially significant impact.

IMPACT 4.9-9: LAND SUBSIDENCE. BECAUSE OF THE SHALLOW BEDROCK CONDITIONS ON THE PROJECT SITE, LAND SUBSIDENCE IS HIGHLY UNLIKELY. THIS IMPACT WOULD BE CONSIDERED LESS THAN SIGNIFICANT.

Extraction of groundwater has been known to cause land subsidence within alluvial environments. However, no large groundwater extraction, gas, oil or geothermal wells are known to exist within or near the site. Additionally, the project site contains a thin mantle of soil developed over weathered bedrock. Land subsidence on the site is highly unlikely and would, therefore, result in less-than-significant impacts.

> IMPACT 4.9-10: MINERAL RESOURCES. THERE IS EVIDENCE OF EARLY DREDGING OF CARSON CREEK AND A POSSIBLE LODE GOLD MINE ON THE PROJECT SITE; HOWEVER, ALL MINING EVIDENCE IS VERY OLD AND THERE IS NO INDICATION OF PRODUCTION OR RECENT ACTIVITY. THE IMPACT OF THE PROJECT ON MINERAL RESOURCES WOULD BE CONSIDERED LESS THAN SIGNIFICANT.

The project site is in mineral resource zone (MRZ-4) classified as areas where the available data do not preclude the presence or absence of mineral deposits. Although evidence of early dredging of Carson Creek exists within the northwestern portion of the site near White Rock Road, it is very old and there is no indication of production or recent activity. The impact of the project on mineral resources would be considered less than significant.

> IMPACT 4.9-11: GENERAL PLAN CONSISTENCY - GEOLOGIC/SEISMIC HAZARDS AND EROSION/ SEDIMENTATION. THE PROJECT SITE IS SUBJECT TO GEOLOGIC AND SEISMIC HAZARDS AND SEDIMENTATION AND EROSION IMPACTS. THERE ARE NO PROVISIONS WITHIN THE PROPOSED SPECIFIC PLAN DIRECTED AT THESE POTENTIAL IMPACTS. THE PROPOSED PROJECT WOULD BE POTENTIALLY INCONSISTENT WITH THE GENERAL PLAN GOAL 6.3 AND OBJECTIVES 6.3.2 AND 7.1.2 RELATED TO SOIL SEISMIC AND GEOLOGIC HAZARDS AND EROSION/SEDIMENTATION RESULTING IN A SIGNIFICANT IMPACT.

General Plan Goal 6.3 and Objectives 6.3.2 and 7.1.2 are aimed at minimizing threats to life and property from soil seismic and geologic hazards and erosion/sedimentation. The project site is subject to seismic ground shaking, rupture, and topographic alterations (ground instability and erosion). The proposed Specific Plan does not have provisions to reduce these potential geologic and seismic impacts and would be considered, therefore, inconsistent with the General Plan. This inconsistency is considered to be a significant impact. A potential for differential compaction/seismic settlement and collapsible/expansive soils also exists in Carson Creek drainage areas.

4.9.3 MITIGATION MEASURES

Mitigation measures are provided below to reduce significant or potentially significant earth resources impacts of the proposed project to the extent feasible. As discussed in Section 4.1 (Introduction to Environmental Analysis), mitigation measures are numbered corresponding to the number of the impact to be mitigated.

MITIGATION MEASURE 4.9-1: LIQUEFACTION

a) The El Dorado County Department of Transportation (DOT) shall consult with the El Dorado County Planning Department during the grading permit approval process to ensure that earth resources impacts related to development in the Carson Creek Specific Plan area are sufficiently addressed.

b) Prior to the approval of a grading permit for development in the Carson Creek drainage, the applicant shall submit to, and receive approval from, the El Dorado County Department of Transportation (DOT) a soils and geologic hazards report meeting the requirements for such reports provided in the El Dorado County Grading Ordinance. If proposed improvements to the Carson Creek drainage would be located in areas identified as susceptible to soils or geologic hazards, proposed improvements to the Carson Creek drainage shall be designed to prevent failure or damage due to such hazards.

MITIGATION MEASURE 4.9-3: DIFFERENTIAL COMPACTION/SEISMIC SETTLEMENT

Apply mitigation measure 4.9-1 and no additional measures are required.

MITIGATION MEASURE 4.9-4: GROUND RUPTURE

Prior to the issuance of building permits, all structures shall be designed in accordance with the Uniform Building Code (UBC), Chapter 23. Although wood frame buildings of not more than two stories in height in unincorporated areas are exempt under the California Earthquake Protection Law, structures shall adhere to the design factors presented for UBC Zone 3, as a minimum. Final design standards shall be in accordance with the findings of detailed geologic and geotechnical analyses for proposed building sites.

Prior to the approval of subdivision tract maps in the vicinity of the Mormon Island Fault Zone, the location and age of displacements associated with the fault zone shall be determined by geologic mapping and trench logging. Critical structures such as schools shall not be located within the zones of active faulting.

MITIGATION MEASURE 4.9-5: GROUND SHAKING

Prior to the issuance of building permits, all structures shall be designed in accordance with the UBC, Chapter 23. Although wood frame buildings of not more than two stories in height in unincorporated areas are exempt under the California Earthquake Protection Law, structures shall adhere to the design factors presented for UBC Zone 3, as a minimum. Final design standards shall be in accordance with the findings of detailed geologic and geotechnical analyses for proposed building sites.

Prior to the approval of subdivision maps in the vicinity of the Mormon Island Fault Zone, a ground acceleration analysis shall be conducted for the Mormon Island Fault Zone. All structures shall be

designed in accordance with the ground acceleration analysis for the Mormon Island Fault Zone and the onsite ground accelerations anticipated from the Bear Mountains Fault Zone.

MITIGATION MEASURE 4.9-7: TOPOGRAPHIC ALTERATION (GROUND STABILITY AND EROSION)

Prior to the issuance of grading permits, grading design plans shall incorporate the findings of detailed geologic and geotechnical investigations. These findings all include methods to control soil erosion and ground instability. Some potential methods include:

a) Uncemented silty soils are prone to erosion. Cut slopes and drainage ways within native material shall be protected from direct exposure to water run off immediately following grading activities. Any cut or fill slopes and their appurtenant drainage facilities shall be designed in accordance with the El Dorado County Grading Ordinance and the Uniform Building Code guidelines. In general, soil slopes shall be no steeper than 2:1 (horizontal to vertical) unless authorized by the Geotechnical Engineer. Slope angles shall be designed to conform to the competence of the material into which they are excavated. Soil erosion and instability may be accelerated due to shearing associated with the Foothills Fault System, and/or Mormon Island Fault Zone.

b) Drainage facilities shall be lined as necessary to prevent erosion of the site soils immediately following grading activities.

c) During construction, trenches greater than 5 feet in depth shall be shored, sloped back at a 1:1 (horizontal to vertical) slope angle or reviewed for stability by the Geotechnical Engineer in accordance with the Occupational Safety and Health Administration regulations if personnel are to enter the excavations.

d) Surface soils may be subject to erosion when excavated and exposed to weathering. Erosion control measures shall be implemented during and after construction to conform with National Pollution Discharge Elimination System, Storm Drain Standards and El Dorado County Standards.

e) Rainfall shall be collected and channelled into an appropriate collection system designed to receive the runoff, minimize erosion and convey the runoff off-site. Conduits intended to convey drainage water off site shall be protected with energy dissipating devices as appropriate, and in some areas potentially lined with an impermeable, impact proof material.

f) Parking facilities, roadway surfaces, and buildings all have impervious surfaces which concentrate runoff and artificially change existing drainage conditions. Collection systems shall be designed where possible to divert natural drainage away from these structures, to collect water concentrated by these surfaces and to convey water away from the site in accordance with the National Pollution Discharge Elimination System, Storm Drain Standards and El Dorado County Standards.

MITIGATION MEASURE 4.9-8: COLLAPSIBLE AND EXPANSIVE SOIL

Apply mitigation measure 4.9-1 and no additional mitigation measures are required.

MITIGATION MEASURE 4.9-11: GENERAL PLAN CONSISTENCY - GEOLOGIC/SEISMIC HAZARDS AND EROSION/SEDIMENTATION

Apply mitigation measures 4.9-1 4.9-4, 4.9-5, and 4.9-7, and no further mitigation is required.

4.9.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Following implementation of the above mitigation measures, project impacts on earth resources would be reduced to less than significant.

4.10 HYDROLOGY AND WATER QUALITY

4.10.1 ENVIRONMENTAL SETTING

The analysis in this section is based on a hydrology report prepared for the project site by Gene E. Thorne & Associates, Inc., and data from the Carson Creek Regional Drainage Study. In addition, a site reconnaissance was conducted to visually assess the existing surface water conditions at the project site.

REGULATORY FRAMEWORK

The statutes, regulations, plans, and policies applicable to hydrology, flooding, and water quality in the project area are summarized below.

Clean Water Act

The discharge of dredged or fill material into waters of the United States is regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act. Construction activities that impact designated jurisdictional waters generally fall under USACE regulation. These regulations are intended to limit degradation of water quality. Because the project site contains areas of USACE jurisdiction, the proposed project would be subject to these regulations.

National Pollution Discharge Elimination System

During the re-authorization of the Clean Water Act, Section 402 (P) was added through Section 405 of the Water Quality Act of 1987, providing for a program to eliminate pollution from non-point municipal and industrial sources. Land development and construction activities of five or more acres are included under this legislation. The addition of stormwater discharges to the National Pollution Discharge Elimination System (NPDES), the primary federal water quality permit system administrated by the federal Environmental Protection Agency (EPA), was completed on October 31, 1990, when the final regulations were signed by EPA. On November 16, 1990, the final rule and regulations for the NPDES Permit Application for Storm Water Discharges [40 Code of Federal Regulations (CFR) 122-124] were published in the Federal Register.

The State Water Resources Control Board has the authority to issue NPDES permits but generally delegates this responsibility to the Regional Water Quality Control Boards. The State Board has issued two types of stormwater permits in the project region. A general permit has been issued for non-point municipal and industrial stormwater discharges, excluding construction activities. A second permit

applies to all construction activity (with the exception of those on Indian lands and the Lake Tahoe hydrogeologic unit).

Site development associated with the project would fall under the general construction activity stormwater discharge permit process. The general construction permit authorizes the discharge of stormwater and prohibits the discharge of materials other than stormwater and all discharges which contain a hazardous substance in excess of reportable quantities established in 40 CFR 117.3 or 40 CFR 302.4, unless a separate NPDES permit has been issued to regulate those discharges.

A general permit would require discharges associated with construction activity to:

- eliminate or reduce non-stormwater discharges to stormwater systems and other waters of the nation;
- develop and implement a stormwater pollution prevention plan (SWPPP); and
- perform inspections of stormwater control structures and pollution prevention measures.

National Flood Insurance Program

The National Flood Insurance Program (NFIP) provides insurance to the public in communities which participate in the program. The Federal Emergency Management Agency (FEMA) is responsible for managing the NFIP. FEMA publishes the Federal Insurance Rating Maps (FIRM), which identify the extent of flood potential in flood prone communities. FIRMs are based on a 100-year flood (or base flood) event. The types of information on the FIRM allows the user to:

- identify Special Flood Hazard Areas subject to flooding;
- identify the location of a specific property;
- estimate the base flood elevation (BFE) at a specific site;
- determine the flood insurance zone at a specific site, and
- determine the location of the regulatory floodway (where shown) (FEMA 1988).

Relevant General Plan Goals, Objectives, and Policies

The El Dorado County General Plan, as adopted January 1996, provides the following objectives and policies relative to hydrology and water quality:

> **Policy 6.4.1.1:** The County shall continue participation in the National Flood Insurance Program and application of flood plain zoning regulations.

Policy 6.4.1.2: The County shall identify and delineate flood prone study areas discovered during the completion of the master drainage studies or plans.

Policy 6.4.1.3: No new critical or high occupancy structures (e.g., schools, hospitals) shall be located in the 100-year floodplain of any river, stream, or other body of water.

Policy 6.4.2.1: Apply a zoning overlay for areas located within dam failure inundation zones, as identified in the *El Dorado County Operation Area Multi-Hazard Functional Emergency Operations Plans*.

Policy 6.4.2.2: No new critical or high occupancy structure (e.g., schools, hospitals) should be located within the inundation area resulting from failure of dams identified in the *El Dorado County Operation Area Multi-Hazard Functional Emergency Operations Plans*.

Policy 7.1.2.2: Discretionary projects that require earthwork and grading, including cut and fill for roads, shall be required to minimize erosion and sedimentation, conform to natural contours, maintain natural drainage patterns, minimize impervious surfaces, and maximize the retention of natural vegetation.

Policy 7.3.1.1: Encourage the use of *Best Management Practices*, as identified by the Soil Conservation Service, in watershed lands as a means to prevent erosion, siltation, and flooding.

Policy 7.3.2.1: Stream and lake embankments shall be protected from erosion, and streams and lakes shall be protected from excessive turbidity.

Policy 7.3.2.2: Projects requiring a grading permit shall have an erosion control program approved, where necessary.

Policy 7.3.4.1: Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.

Policy 7.3.4.2: Modification of natural stream beds and flow shall be regulated to ensure that adequate mitigation measures are utilized.

EXISTING SURFACE HYDROLOGY

Regional Setting

The project site is located in the Cosumnes River watershed. The watershed encompasses the southern region of El Dorado County, extending from the headwaters at the Iron Mountain Ridge, west to the terminus where the Cosumnes River flows into the Sacramento River in Sacramento County. Major tributaries flowing directly into the Cosumnes River include the South Fork of the Cosumnes River, Middle Fork of the Cosumnes River, North Fork of the Cosumnes River, and Canyon Creek. Carson Creek, which flows through the project site, is also a tributary to the Cosumnes River. Carson Creek and Deer Creek, which flows approximately 5 miles east of the project site, drain a significant portion

of western El Dorado County in the El Dorado Hills/Latrobe and Cameron Park areas respectively. The peak runoff from the Cosumnes River, where precipitation occurs primarily as rainfall, is from January through April. Rainfall at the project site averages approximately 24 inches per year (El Dorado County 1994).

Local Setting

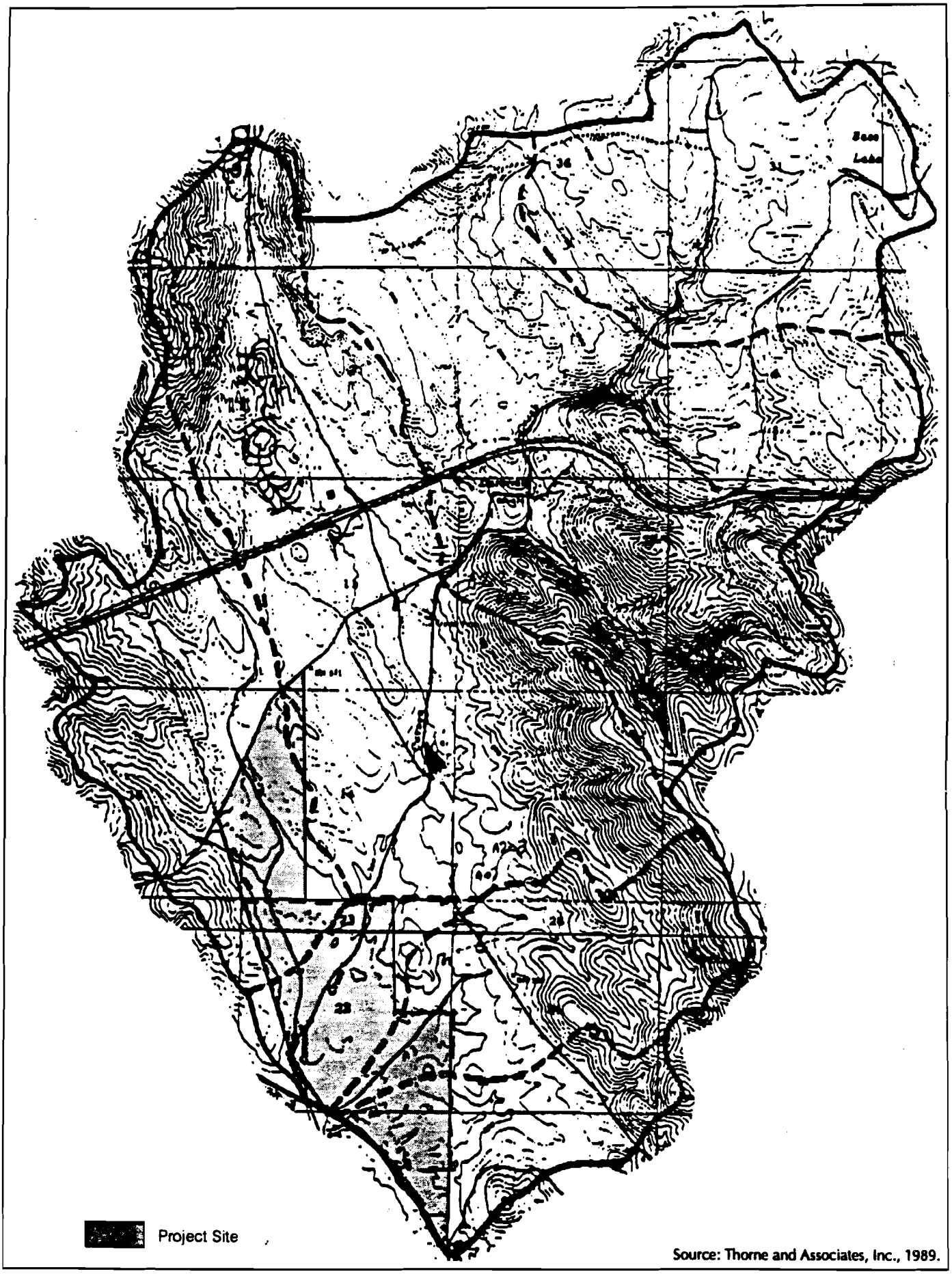
Carson Creek and its tributary water courses flow through the project site and join near the southern site boundary where the water passes under a Southern Pacific Railroad (SPRR) bridge. This bridge is commonly referred to as Malby Crossing. The watershed area above this point is approximately 15 square miles (Thorne & Associates 1989). The Carson Creek watershed is presented in Exhibit 4.10-1.

Existing 100-Year Flood Potential

Flooding results when water flow cannot be contained within the banks of natural or manmade drainage courses. Flooding can be caused by an excessive storm event, snowmelt, blockage of watercourse, dam failure, or combination of these or other events. A flood event can cause injury or loss of property such as: flooding of structures including homes and businesses; uplift of vehicles and other objects; damage to roadways, bridges, infrastructure, and public services; and soil instability, erosion, and landsliding.

To date, FEMA has not delineated a 100-year flood plain for the Carson Creek watershed. However, a 1989 hydrology study was conducted by Thorne & Associates to determine the extent of the 100-year flood plain. Based on that study, which divided the Carson Creek watershed into five sub-basins, the natural channels for Carson Creek and its tributaries have limited capacity and will carry the runoff from only minor storms within the streambanks. For all but the smallest flood events, water will leave the existing channels and spread into overbank areas along the stream. During a 100-year storm event (a storm intensity that occurs on average once every 100 years), the total of peak discharges for the five sub-basins was estimated to be 5,865 cubic feet per second (cfs), assuming a 24-hour rainfall of 6.1 inches. The actual peak discharge at the watershed's outlet at Malby Crossing would be somewhat lower, because the individual peaks for each sub-basin would occur at different times (Thorne & Associates 1989).

A recent preliminary hydrology study, the Carson Creek Regional Drainage Study, was performed on the 15-square-mile Carson Creek watershed by Shari Bottorff, consulting hydrologist. The drainage study was submitted to the El Dorado County Department of Transportation (DOT) for review on April 25, 1995, and has recently been determined to be technically adequate by DOT (Collier, pers. comm., 1996). During a 100-year storm event, existing peak discharge just south of Malby Crossing was estimated to be approximately 7,700 cfs (Bottorff, pers. comm., 1995).



Source: Thorne and Associates, Inc., 1989.

Carson Creek Watershed

EXHIBIT 4.10-1

Not To Scale

NORTH

EXISTING GROUNDWATER RESOURCES

No defined groundwater basins are located in El Dorado County. The County lies within the Central Sierra Nevada geomorphic province with groundwater located primarily in hard rock aquifers. Water can be found in stress fractures, joints, faults, and fractures caused by heating and cooling in volcanic rock. The highest groundwater yields occur at shallow depths where fracturing is greatest. Groundwater movement is influenced by characteristics of the fracture system including the size and location of fractures, interconnection between fractures, and existing materials within the fracture (El Dorado County 1994).

Perched groundwater may exist locally or onsite at shallow depths. True groundwater within the project vicinity is generally found from 150 feet to 300 feet below ground surface. However, because of the anomalous nature of fractured bedrock media, groundwater may also be found within 50 feet of the ground surface. Local seasonal line and point recharge areas occur beneath Carson Creek and its tributaries and ponds. Groundwater depth can be expected to be shallower near these recharge sources. Groundwater depth may also be influenced by groundwater barriers such as faults and other factors. In general, the groundwater gradient within the project vicinity is to the southwest or west, conforming to the slope of the foothills. Locally, however, the groundwater gradient can change dramatically due to the influence from fractures, foliation, faults, or man-made structures such as wells.

Based on this information, the prediction of groundwater depth and characteristics at the project site is difficult without onsite drilling. Unlike alluvial aquifers located on valley floors, hard rock aquifers can vary considerably over short distances, minimizing the usefulness of adjacent well data.

WATER QUALITY

Grading for construction activity removes vegetation, and exposes soil to wind and water erosion. The erosion can result in sedimentation which is ultimately carried into surface waters. Developed urban uses contribute to stormwater runoff which transports surface water contaminants from roadway surfaces, lawns, driveways and parking lots, and other exposed structural and landscape surfaces into the stormdrain system. Studies of urban runoff contamination have shown different pollution generation rates for residential, commercial, and highway areas and generally indicate an increase in mass loading of contaminants as one progresses downstream. These studies also validate the concept of heavy "first flush" contamination where runoff concentrations are highest within the first 0.5 to 1 inch of rain. Pollutants tend to accumulate through the dry season, and often enter the first rainfall runoff, and/or a low-flow stream, with little dilution.

Runoff originates from adjacent offsite residential areas to the north and the El Dorado Hills Business Park to the east of the project site and drains across the site toward the south. The water quality of the site's runoff is affected by the existing onsite agricultural uses and offsite residential and business park areas. Because of the low existing onsite land use intensity, the primary water quality concern onsite is related to organic contamination. In particular, extensive cattle grazing along Carson Creek and its tributaries have deteriorated water quality onsite. Downstream water quality is also likely to have been affected by cattle grazing on agriculturally zoned land in Sacramento County. Furthermore, undeveloped land typically produces more suspended solids on a per acre basis than developed areas due to urban stabilization of the land by pavement and landscaping (solids in urban runoff, however, are more likely to be higher in mineral and manmade products and may also have absorbed other contaminants).

Excess nutrients can stimulate the growth of unwanted vegetation and nuisance plants (e.g., algae), altering the habitat composition of Carson Creek and its tributaries, and depressing dissolved oxygen levels. Heavy metals are among the pollutants present in the urban runoff that are likely to cause toxicity to aquatic organisms; the most common metal pollutants are copper, lead, and zinc. In addition to causing direct toxicity, metals can bioaccumulate in aquatic organisms and other wildlife through the food chain. Pesticides and petroleum products may also cause toxicity to aquatic life. However, these compounds are less common and, unlike heavy metals, will degrade over time.

4.10.2 ENVIRONMENTAL IMPACTS

Site hydrology has been examined in this section at a level appropriate to the task of evaluating project impacts. Although detailed storm drainage design was not available for this analysis, sufficient detail was provided to determine offsite discharge and water quality impacts. Final drainage plan design would be required to be prepared by a Certified Civil Engineer and would be subject to El Dorado County Department of Transportation (DOT) approval.

THRESHOLDS OF SIGNIFICANCE

Appendix G (Significant Effects) of the State CEQA Guidelines states that a project will normally have a significant effect on hydrology/water quality if it will:

- substantially degrade water quality;
- contaminate a public water supply;
- substantially degrade or deplete groundwater resources;
- interfere substantially with groundwater recharge; or
- cause substantial flooding, erosion, or siltation.

A significant impact on hydrology/water quality would also occur if implementation of the proposed project would result in an inconsistency with relevant El Dorado County General Plan policies.

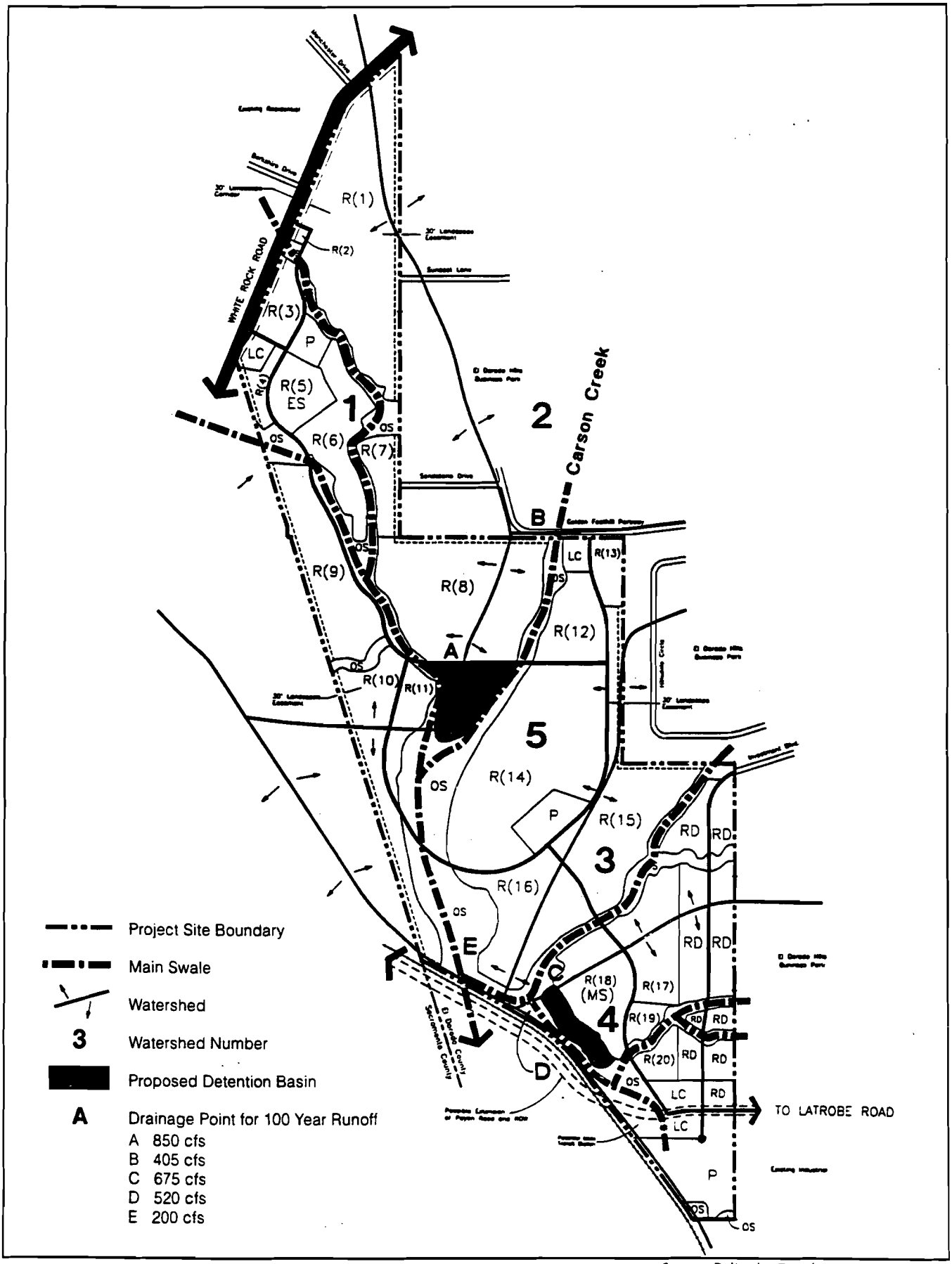
IMPACTS

A detailed storm drainage design was not available for this EIR analysis, but sufficient detail was provided in the Specific Plan to determine offsite discharge and water quality impacts. The proposed Specific Plan provides an overall drainage concept including use of the existing natural drainage system (Carson Creek and tributaries) to the extent possible, with improvements such as stone riprap, revetment or gabion material where necessary. Natural vegetation would be allowed in drainageways so long as drainage or flood protection would not be compromised. The proposed drainage concept also includes use of detention basins (doubling as park or open space sites), and urban drainage improvements such as gutters, culverts, drainage lines, and bridges. A preliminary watershed hydrology report was prepared by Shari Bottorff, which includes Carson Creek and other planned, developing, and built projects in the area. That report was submitted to DOT for review and assessment, and has recently been deemed technically adequate by DOT (Collier, pers. comm., 1996). Final drainage plan design would be required to be prepared by a Certified Civil Engineer and would be subject to El Dorado County DOT approval prior to grading plan approval.

> IMPACT 4.10-1: INCREASED SURFACE RUNOFF. PROJECT DEVELOPMENT WOULD INCREASE RUNOFF QUANTITY AND PEAK DISCHARGE FROM THE PROJECT SITE RESULTING IN POTENTIAL INCREASED WATER LEVELS IN CARSON CREEK. ALTHOUGH THE SPECIFIC PLAN PROPOSES IMPROVEMENTS DESIGNED TO ENSURE THAT DOWNSTREAM FLOWS ARE NOT SUBSTANTIALLY INCREASED OVER EXISTING LEVELS, AN INCREASE IN DOWNSTREAM PEAK FLOWS COULD OCCUR DURING 100-YEAR STORM EVENTS. THIS WOULD BE CONSIDERED A POTENTIALLY SIGNIFICANT PROJECT IMPACT.

Increased runoff is anticipated to occur with the conversion of the relatively undeveloped site to residential, commercial, industrial, and other uses. Project development would be anticipated to increase the impervious area on the site from less than 1% to approximately 75% of the total area. Impervious areas such as roadways, roofs, and parking areas would alter runoff patterns and increase discharge volumes and rates from the site by limiting ground infiltration.

The proposed drainage plan for the Specific Plan is presented in Exhibit 4.10-2. The proposed Specific Plan would retain the existing surface natural drainageways and incorporate retention/detention basins alongside the drainage channels. The development of impervious surfaces contemplated under the Specific Plan would require that storm drainage be conveyed through storm drainage lines, natural channels, detention ponds, culverts, and bridges. The Specific Plan proposes two detention basins that would be located along Carson Creek, as depicted in Exhibit 4.10-2. The detention ponds would be



Source: Palisades Development, Inc., 1996.

Drainage Plan

EXHIBIT 4.10-2

CARSON CREEK SPECIFIC PLAN

Not To Scale

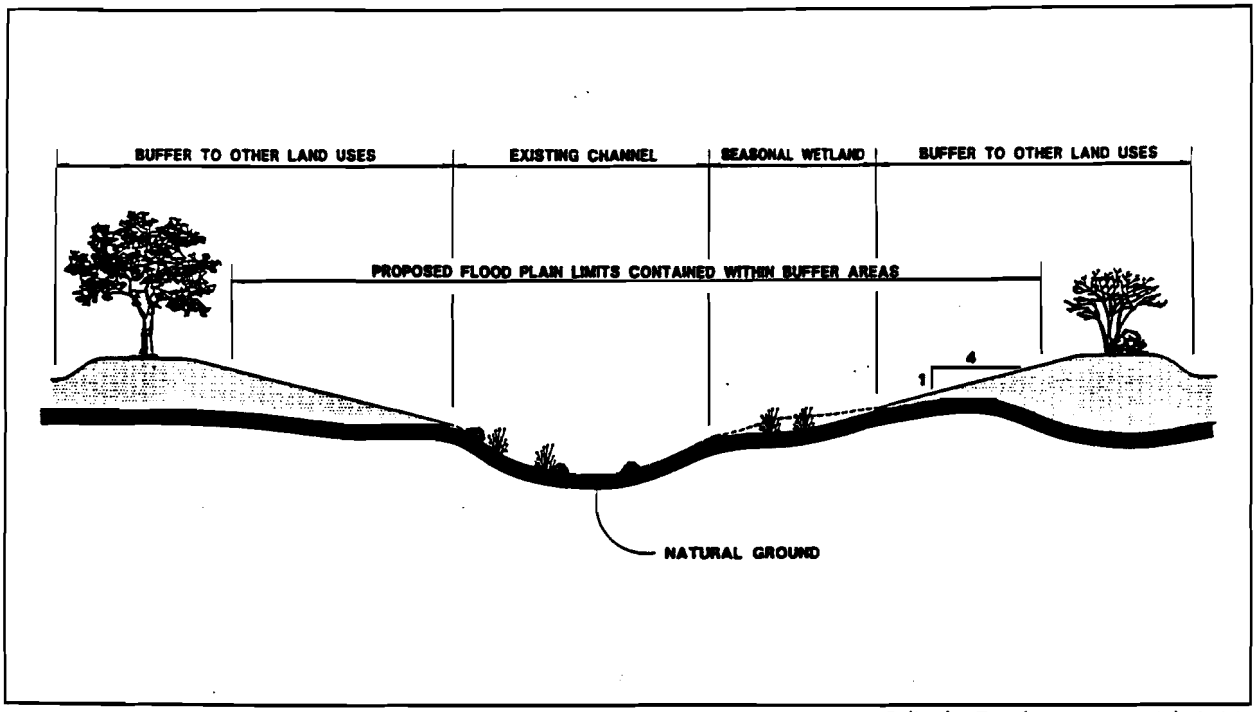
NORTH

designed to reduce downstream flows to existing levels. The detention ponds would have a combined storage capacity of 22 acre-feet (14 acre-feet in one pond and 8 acre-feet in the other), which would adequately accommodate project-generated runoff increases (Ito, pers. comm., 1995). The detention basins would be incorporated into the open space and community park areas. The proposed basins would be shallow, irregularly-shaped, and would have slope banks of 4:1 or flatter. The detention ponds would be landscaped with vegetation that could withstand temporary flooding.

According to the Carson Creek Regional Drainage Study, peak flows at the southern outflow of the Carson Creek watershed are projected to increase 6.5% from approximately 7,700 cfs to 8,200 cfs during a 100-year storm event with implementation of proposed onsite and various offsite upstream developments in the Carson Creek watershed. Some of the upstream projects would be required by the County to, like the Specific Plan, include their own detention basins or other flood control measures designed to limit outflows to existing levels. The projected peak flows identified in the Carson Creek Regional Drainage Study assume the implementation of such detention/flood control measures (Bottorff, pers. comm., 1995). Given that the Specific Plan proposes detention basins designed to limit peak flow to existing levels and that the project site constitutes only 7.4% (1.1 square miles) of the 15-square-mile watershed, future upstream development would likely contribute to the majority of the projected peak flow increase. However, because buildout of the Specific Plan could contribute to this projected increase in peak flows in the Carson Creek watershed, surface runoff impacts would be considered potentially significant.

> IMPACT 4.10-2: 100-YEAR FLOOD EVENT. THE SPECIFIC PLAN PROPOSES TO PROVIDE 100-YEAR FLOOD PROTECTION BY RAISING PROPOSED DEVELOPMENT AREAS ABOVE THE 100-YEAR FLOOD PLAIN. HOWEVER, AT PRESENT, INSUFFICIENT DRAINAGE PLAN SPECIFICITY IS AVAILABLE TO DETERMINE WHETHER PROPOSED RESIDENTIAL, COMMERCIAL, AND OTHER USES WOULD BE AFFORDED 100-YEAR FLOOD PROTECTION. THEREFORE, 100-YEAR FLOOD IMPACTS WOULD BE CONSIDERED POTENTIALLY SIGNIFICANT.

As discussed above, peak flows during a 100-year storm event are projected to increase with development of onsite uses associated with the proposed Specific Plan and offsite upstream development in the Carson Creek watershed. The Specific Plan proposes that existing creek channels would be retained in areas where 100-year flood protection is possible. Channel improvements are also proposed to be incorporated where necessary to ensure 100-year flood protection. The Specific Plan proposes that channel improvements would be completed by filling in the areas to be developed and raising such areas above the 100-year flood plain elevation. Where additional channelization is required, the Specific Plan proposes that channel banks would be graded to a slope of 4:1 or flatter. The channel widths would vary depending on peak flows. Exhibit 4.10-3 presents a typical Carson Creek section. However, the drainage plan provides insufficient specificity to determine whether proposed residential, commercial, and other uses would be afforded 100-year flood protection.



Source: Palisades Development, Inc., July 1994.

Typical Carson Creek Section EXHIBIT 4.10-3

For example, the Specific Plan does not provide final graded elevations for the proposed residential, commercial, and industrial land uses. Until data are available to demonstrate that proposed land uses would be provided 100-year flood protection, this would be considered a potentially significant impact. Engineering-level analyses have not been conducted to determine existing versus post-project peak flows at Malby Crossing, or in locations along Carson Creek during a 100-year flood event. Until such analyses are conducted and deemed complete and acceptable by DOT, the project would result in a potentially significant impact related to 100-year floods.

IMPACT 4.10-3: FLOODING ASSOCIATED WITH THE FAILURE OF DAMS AND LEVEES. SEVERAL FLOOD CONTAINMENT PONDS ARE PLANNED FOR CONSTRUCTION WITHIN THE CARSON CREEK DRAINAGE. THE HEIGHT OF THE DAMS FOR THESE PONDS IS INTENDED TO BE LESS THAN FIVE FEET. THE BANKS OF CARSON CREEK ARE PLANNED TO BE REINFORCED WITH LEVEES. THERE IS A POTENTIAL FOR FLOODING DUE TO FAILURE OF DAMS AND LEVEES. THIS IMPACT WOULD BE CONSIDERED POTENTIALLY SIGNIFICANT.

Two detention basins are proposed for construction within the Carson Creek drainage. These basins would require the construction of a 4.5-foot-high bermed area or dam for each basin. The height of the berms for these basins is proposed to be less than 5 feet. The banks of Carson Creek are planned to be reinforced with levees, where needed. Little information was submitted regarding the construction technique, timing, or ultimate stability of proposed hydrologic reinforcement features and, therefore, the project would result in a potentially significant impact related to dams and levees. There would be a potential for flooding associated with the failure of proposed dams and levees. This impact would be considered potentially significant.

> IMPACT 4.10-4: GROUNDWATER RECHARGE. BECAUSE THE EXISTING CREEK CHANNELS WOULD BE RETAINED WITH DEVELOPMENT, GROUNDWATER RECHARGE WOULD NOT BE SUBSTANTIALLY IMPAIRED BY BUILDOUT OF THE SPECIFIC PLAN. THIS WOULD BE CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

As discussed previously, groundwater recharge tends to be the highest beneath Carson Creek and its tributaries. Because the Specific Plan proposes to retain the existing creek channels, groundwater recharge would not be substantially impaired by buildout. Groundwater recharge with buildout of the proposed Specific Plan would likely occur at or near existing levels. This would be considered a less-than-significant impact.

> IMPACT 4.10-5: SHORT-TERM CONSTRUCTION-RELATED WATER QUALITY IMPACTS. WATER QUALITY WOULD BE DEGRADED DURING CONSTRUCTION ACTIVITIES ASSOCIATED WITH BUILDOUT OF THE PROPOSED SPECIFIC PLAN DUE TO THE AREA AND QUANTITY OF POTENTIAL GRADING ACTIVITIES. THIS WOULD BE CONSIDERED A SIGNIFICANT PROJECT IMPACT.

New developments of generally 5 acres or greater are subject to a National Pollution Discharge Elimination System (NPDES) permit. The purpose of the permit, issued by the Central Valley Regional Water Quality Control Board (Central Valley Regional Board-CVRB), is to protect water quality from development that would discharge into a surface water body. The need for an NPDES permit would be triggered with an application for development of five acres or greater. Individual development projects of five acres or greater on the project site would be subject to an NPDES permit.

The proposed project could result in water quality degradation during the construction, or operation of the roadway improvements. During grading and construction, roadway improvements would eliminate natural vegetation, which acts to slow runoff, provides protection from erosion and reduces the transport of sediment. Existing irregularities in ground surface would be graded into smooth surfaces which would allow for unimpeded runoff. Existing soils in the proposed project area vary in their rate of permeability, and erosion potential. The combination of factors at work during grading and construction would

increase the potential for erosion, and sedimentation into local waterways. The El Dorado County General Plan contains policies that would protect from some erosion and sedimentation. These policies were identified in previous text (beginning page 4.10-2), and are evaluated with regard to the project under Impact 4.10-7.

> IMPACT 4.10-6: LONG-TERM WATER QUALITY IMPACTS. WATER QUALITY WOULD BE DEGRADED FOLLOWING SITE DEVELOPMENT BY THE INTRODUCTION OF URBAN POLLUTANTS INCLUDING VEHICLE OIL AND GREASE, HEAVY METALS ON PARKING LOTS AND DRIVEWAYS, FERTILIZERS AND PESTICIDES USED ON SITE LANDSCAPING, AND TOXIC COMPOUNDS RELEASED FROM COMMERCIAL AND INDUSTRIAL AREAS. THIS WOULD BE CONSIDERED A SIGNIFICANT PROJECT IMPACT.

In commercial areas, stormwater runoff can convey a wide range of pollutants to receiving waters. Vehicles contribute oil, grease, and metals onto streets and driveways and can be carried into creeks after rainfall events. Excessive use of fertilizers, pesticides and herbicides on the site's landscaping can result in leaching of nutrients and toxic compounds into stormwater runoff. Such compounds are soluble and would generally not be removed in detention basins.

Urban pollutants can directly or indirectly affect aquatic life. High concentrations of toxics in runoff can be lethal to aquatic life; chronic, low levels may enter the food chain, affecting the long-term breeding success of populations and lower reproductive potential. Aquatic and wildlife habitat can also be adversely affected by the accumulation of toxics, which indirectly can affect aquatic and wildlife resources.

Pollutant levels are typically highest during late summer and fall when pollutants, previously bound to particulates in the sediments, are released during the first large rainfall event of the season. Because the pollutants typically are concentrated, the potential for toxic events are more likely during first flush events because the dilution factor is usually low.

Common pollutants found in urban runoff include trace metals (copper, lead, zinc, cadmium, chromium, arsenic, and nickel), PCBs, oil and grease, nutrients, coliform bacteria, organic compounds, and sediment. Generally, the high level of metals can be traced to one of several urban sources, including vehicle operation and maintenance, atmospheric fall out, and illegal sewage discharges.

Buildout of the Specific Plan would increase the potential for surface water pollution through the introduction of urban runoff into the Carson Creek watershed. Although the proposed detention basins would allow for the settling of pollutants prior to introduction to the existing surface water system, some pollutants would be expected to enter surface waters at a higher-than-existing level. Downstream

agricultural uses could be exposed to higher levels of soluble urban pollutants. This would be considered a potentially significant impact.

> IMPACT 4.10-7: CONSISTENCY WITH RELEVANT GENERAL PLAN PROVISIONS. THE SPECIFIC PLAN WOULD BE REQUIRED TO COMPLY WITH RELEVANT EL DORADO COUNTY GENERAL PLAN OBJECTIVES AND POLICIES RELATED TO HYDROLOGY AND WATER QUALITY. ALTHOUGH THE SPECIFIC PLAN PROPOSES TO MAINTAIN THE NATURAL DRAINAGEWAYS, INCORPORATE DETENTION BASINS, AND PROVIDE 100-YEAR FLOOD PROTECTION, MITIGATION MEASURES ARE REQUIRED TO ENSURE THAT PROPOSED SPECIFIC PLAN PROVISIONS ARE SUCCESSFUL. THEREFORE, THE PLAN WOULD NOT BE CONSISTENT WITH GENERAL PLAN POLICIES RELATED TO HYDROLOGY AND WATER QUALITY. THIS WOULD BE CONSIDERED A SIGNIFICANT IMPACT.

As discussed previously, the Specific Plan proposes to preserve the natural channel of Carson Creek and its tributaries, to limit post-development outflows to existing levels, and to provide for 100-year flood protection; this would be expected to be accomplished with mitigation measures provided in this section. Therefore, the Specific Plan would, without mitigation, be inconsistent with the relevant El Dorado County General Plan policies applicable to hydrology and water quality. This would be considered a significant impact.

4.10.3 MITIGATION MEASURES

Mitigation measures are provided below to reduce significant or potentially significant hydrology and water quality impacts of the proposed project to the extent feasible. As discussed in Section 4.1 (Introduction to Environmental Analysis), mitigation measures are numbered corresponding to the number of the impact to be mitigated.

MITIGATION MEASURE 4.10-1: INCREASED SURFACE RUNOFF

a) Prior to the approval of the first tentative subdivision or parcel map, the project applicant shall submit and obtain approval of final drainage plans by the El Dorado County Department of Transportation. These final drainage plans shall demonstrate that future post-development stormwater discharge levels from the project will remain at existing stormwater discharge levels and detention basins will be permanently maintained. The drainage plan shall be prepared by a certified Civil Engineer and shall be in conformance with the El Dorado County Drainage Manual adopted by the Board of Supervisors in March 1995. The project applicant shall form a drainage zone of benefit (ZOB) responsible for all stormwater drainage facility maintenance requirements. The drainage plan shall include, at a minimum, written text addressing existing conditions, the effects of project improvements, all appropriate calculations, a watershed map, potential increases in downstream flows, proposed onsite improvements, and drainage easements, if necessary, to accommodate flows from the site and implementation and maintenance responsibilities. The plan shall address storm drainage during construction and proposed BMPs to reduce erosion and water quality degradation. All onsite drainage facilities shall be constructed to El Dorado County

Department of Transportation satisfaction. BMPs shall be implemented throughout the construction process. The following BMPs, or others deemed effective by the Department of Transportation, will be implemented as necessary and appropriate:

- Soil Stabilization Practices
  - Straw Mulching
  - Hydromulching
  - Jute Netting
  - Revegetation
  - Preservation of Existing Vegetation

- Sediment Barriers
  - Straw Bale Sediment Barriers
  - Filter Fences
  - Straw Bale Drop Inlet Sediment Barriers

- Site Construction Practices
  - Winterization
  - Traffic Control
  - Dust Control

- Runoff Control in Slopes/Streets
  - Diversion Dikes
  - Diversion Swales
  - Sediment Traps

b) Specific measures shall be identified in the final drainage plans to reduce stormwater discharge at the Southern Pacific Railroad bridge (Malby Crossing) at the site's southern end. These measures shall include detention basins of adequate size to reduce post-development discharge to pre-development levels. Maintenance of the detention basin and drainage facilities shall include periodic inspections (e.g., annual) to ensure facility integrity and debris removal as necessary.

MITIGATION MEASURE 4.10-2: 100-YEAR FLOOD EVENT

Project development shall not occur in areas within the 100-year flood zone shown in the Final Carson Creek Regional Drainage Study. The hydrologic study outlines the 100-year flood zones associated with the project and proposed flood control measures such as detention basins. Alternatively, 100-year flood protection improvements, approved by the El Dorado County Department of Transportation, can be implemented to allow development in these areas.

MITIGATION MEASURE 4.10-3: FLOODING ASSOCIATED WITH THE FAILURE OF DAMS AND LEVEES

Apply mitigation measure 4.10-2 and no further mitigation is required.

MITIGATION MEASURE 4.10-5: SHORT-TERM CONSTRUCTION-RELATED WATER QUALITY IMPACTS

a) Prior to issuance of a grading permit, the developer shall obtain from the CVRB a General Construction Activity Stormwater Permit under the National Pollutant Discharge Elimination System (NPDES) and comply with all requirements of the permit to minimize pollution of stormwater discharges during construction activities.

b) Prior to issuance of a grading permit, the project applicant shall submit to the El Dorado County Department of Transportation for review and approval an erosion control program which indicates that proper control of siltation, sedimentation and other pollutants will be implemented per NPDES permit requirements. The erosion control plan shall include BMPs as discussed in Mitigation Measure 4.10-1, and as follows: sediment basins, sediment traps, silt fences, hay bale dikes, gravel construction entrances, maintenance programs, and hydroseeding.

MITIGATION MEASURE 4.10-6: LONG-TERM WATER QUALITY IMPACTS

a) Onsite detention basins shall be constructed and maintained through the construction period to receive stormwater runoff from graded areas to allow capture and settling of sediment prior to discharge to receiving waters.

b) Prior to issuance of a grading permit, the project applicant shall develop a surface water pollution control plan (i.e., parking lot sweeping program and periodic storm drain cleaning) to reduce long-term surface water quality impacts. Parking lot sweeping shall occur on a weekly basis and storm drain clearing shall occur semi-annually. The plan shall also include the installation of oil, gas and grease trap separators in the project parking lot. These grease trap separators will be cleaned annually. The project applicant shall develop a financial mechanism, to be approved by the El Dorado County Department of Transportation, that ensures the long-term implementation of the program.

MITIGATION MEASURE 4.10-7: CONSISTENCY WITH RELEVANT GENERAL PLAN PROVISIONS

Apply Mitigation Measures 4.8-2, 4.10-1, 4.10-2, 4.10-5, 4.10-6, and no further mitigation is required.

4.10.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Following implementation of the above mitigation measures, project impacts on hydrology and water quality would be reduced to less than significant.

4.11 CULTURAL RESOURCES

This section is based on independent review by Michael Brandman Associates and the County of El Dorado of a cultural resources report prepared for the proposed Specific Plan by Susan Lindström, Ph.D., in February 1995 (Lindström 1995). The February 1995 cultural resources report contains confidential information; non-confidential portions of this report are available for review at the El Dorado County Planning Department, located at 2850 Fairlane Court, Placerville, California 95667.

4.11.1 ENVIRONMENTAL SETTING

METHODOLOGY

The cultural resources assessment prepared by Susan Lindstrom, Ph.D. included a literature search of historical and prehistorical themes in the vicinity of the project area and other regional archaeological reports that are on file at the North Central Information Center at California State University at Sacramento. Other research materials were reviewed at the El Dorado County Historical Museum and the El Dorado County Planning Department. The Native American Heritage Commission and representatives of the El Dorado Indian Council were contacted regarding potential Native American concerns. In addition, an archaeological field survey of the project site was conducted by Susan Lindstrom, Ph.D. About 50% of the project area was systematically examined using intensive and general reconnaissance techniques. The remaining 50% of the project area was either subject to cursory coverage or was not inspected. Approximately 100% of the areas highly sensitive to containing heritage resources were examined. This sampling strategy allowed for the detection of the majority of heritage resources anticipated to exist within the project area.

AREA HISTORY AND CULTURE

Prehistory

The project area is located between the Central Valley and the North-Central Sierra Nevada uplands, in a zone that is not well understood archaeologically. A broad view divides the prehistory of the Sierra Nevada and adjoining regions into intervals marked by changes in adaptive strategies that represent major stages of cultural evolution. The oldest finds in the Tahoe Sierra upland region suggest occupation at 8,000 to 9,000 years ago (7,000 BC to 6,000 BC). The prehistoric occupation in the Central Valley is suggested at 3,000 BC to 1,000 BC by Bennyhoff and Heizer in 1958 and pre-10,000 BC by Fedrickson in 1973.

Native Americans

The project vicinity is within the past territorial boundaries of the Washoe, Nisenan, and Northern Sierra Miwok. The Northern Sierra Miwok territory included a foothill territory that extended from roughly the Cosumnes River on the north to beyond the Calaveras River on the south. The Nisenan territory included the plains, foothills and mountainous portions of the drainages of the Yuba, Bear and American Rivers and the lower drainages of the Feather River. The Washoe regularly trekked over the Sierran summit to gather acorns and winter with Nisenan and Miwok friends and relatives. Native Americans were first affected by Spanish colonization and then by the influx of Euroamerican miners during the gold rush.

Mining

The project area is located between two historic mining districts. The Deer Creek Mining District is located in western El Dorado County and eastern Sacramento County. Deer Creek, located about one mile south of the project area, was first placer-mined during the gold rush. In the 1930s and early 1940s, substantial amounts of gold were recovered here by dragline dredges. The Shingle Springs Mining District is located about four miles east of the project area. Tailings produced by shallow surface placer mining occur along Carson Creek and its tributaries.

Transportation

The discovery of gold deposits along the American River resulted in an immediate influx of people into the region. As the demand for mining supplies increased, early rudimentary roads were improved and expanded. Transportation became an important factor in the development and maintenance of the mines, as did the trading centers that sprang up in all of the gold-mining areas. The primary types of transportation that occur in the region included freighting and stage lines, way stations, and the railroad.

Ranching and Early Settlement

Early settlement of the project vicinity occurred due to the construction of the Sacramento Valley Railroad (SVR) line to Latrobe in 1864 and to Shingle Springs in 1865. Ranching was initially focused on sheep but then turned to raising cattle. A portion of the project site appears to have been included in the Chapman-Wilkinson Ranch which was part of the historic White Rock Ranch established in 1850.

ARCHAEOLOGICAL RESOURCES

Previous Archaeological Investigations

Based on the records search, several archaeological surveys have been conducted adjacent to the project site. The southeast portion of the project site was surveyed in 1976 and no resources were found. No previously recorded prehistoric sites were known to be located within or adjacent to the project. However, one isolated projectile point was found in the 1995 sample survey within an area previously surveyed by Snoke (1976). Other prehistoric resources recorded in close proximity to the project site include bedrock mortar features. A site containing petroglyphs (rock carvings) and stone tool manufacturing debris, was recorded 0.3 mile away. A major prehistoric encampment, and possibly part of the ethnographic village of Po lun kit, is located on Carson Creek south of Clarksville. Remarkable bedrock mortars are ground into the white quartz near White Rock (L. Payen, pers. comm. 1995; Peak 1994).

An unrecorded section of the Sacramento Valley-Placerville Railroad is adjacent to the project along site its southwest boundary. There are also several formally identified historic resources located within one mile. These were recorded by Peak (1988) and include: a rock wall, ditch and wagon parts; four foundation areas, including one with mortared walls and a well; a low rock foundation, two small rock wall sections, an excavated area and a ditch; and isolated sections of rock walls. Peak (1990) also recorded a problematic rock wall, one course high. In 1994 Peak recorded remains of the historic White Rock Springs Ranch and a low rock wall along a modern fence. Historic White Rock Road (Mills-Hangtown Road), a main freighting road between Sacramento and the Mother Lode mines, passes outside the project's northern boundary. The project area encompasses landholdings of several prominent ranching families: Euer, Joerger, Kyburz, McMattby, and Woodward.

Several historic resources were inventoried during the prefield research that occur within areas previously surveyed by Snoke (1976). These include: structural foundations, a well and developed spring (CC-2), shallow placer tailings (CC-5 and CC-6), and a ditch (CC-LF-3).

Expected Archaeological Sensitivity

Prior archaeological investigations suggest that the overall archaeological sensitivity of the project area ranges from low to high, depending upon the particular micro-environment and availability of resources (plants, animals, toolstone, etc.). Prehistoric sites are known to occur along permanent and seasonal drainages and in oak groves containing bedrock suitable for grinding features. The types of prehistoric site anticipated in western El Dorado County include: village sites with housepits, dancehouses and associated cemeteries and cry sites; petroglyphs (rock art); quarries where materials for stone tools were

collected and processed; temporary campsites; bedrock milling areas where acorns and other seeds were processed; scatters of artifacts and tool production waste materials; and ceremonial sites with little or no physical remnants.

Historic sites, especially those associated with mining, transportation and ranching themes, might occur in a wide range of environments.

Field Survey/Results

The archaeological field reconnaissance was a sample survey. Accordingly, not all of the project area was given systematic coverage. The survey sample was stratified according to the results of the prefield research. Field inspection was accomplished through a mixed archaeological reconnaissance strategy incorporating intuitive controlled/intensive, intuitive controlled/general, and cursory/non-coverage techniques. Areas identified through prefield research as most likely to contain heritage resources were examined according to intuitive controlled/general coverage by walking systematic parallel transects no greater than 15 to 25 meters apart. These areas were primarily located along creek channels. Other areas thought likely to contain heritage resources were covered by intuitive controlled/intensive coverage with parallel transects no greater than 15 meters apart. These areas incorporated creek channels and adjacent higher ground. The remaining project area was examined by cursory or non-coverage techniques, where there was no systematic attempt to cover the ground and wide spacing precludes the inspection of most areas. Cursory/non-coverage applies to lowlands that are generally farther from water courses.

Six historic sites (CC-1 through CC-6), three linear features (CC-LF-1 through CC-LF-3) and one isolated find (IF-1) were recorded during the onsite archaeological sample survey. These resources are briefly discussed below.

CC-1 This site consists of a large single course field stone foundation, (40 by 40 feet) which represents the remains of the Euer Ranch barn. It is located at the top of a level knoll overlooking Carson Creek. A low circular rock pile northeast of the foundation contained the only artifacts noted on the site -- a heavy-gauge metal bar and a piece of metal strapping. The Euer Ranch hay barn was constructed around the turn of the century. It blew down ca. 1930s and the ruins may have been intentionally burned. This barn was strategically located away from the residence complex and in back of the ranch (Euer, pers. comm. 1995).

CC-2 Located on a low knoll between two small seasonal tributaries to Carson Creek, this site consists of a field stone and raised earthen foundation with two hand dug, stone lined wells, a possible privy pit, and a small stone lined outbuilding foundation. The site appears to have functioned as relatively short-term habitation locale, that may either have been associated with

small scale ranching or later mining or railroad activities. The artifact concentration, located at the northeast corner of the foundation, suggests a post-1870s to 1880s date.

CC-3 This feature is a series of placer mine tailings along a tributary located west of Carson Creek. A shallow ditch follows the creek along the contour above the tailings. The tailings are creek placers and the ditch may not be associated with the tailings. Small creek bars and channel oxbows contain the most well-preserved tailings. The tailings are variable in their quantity and size. Most comprise relatively small rocks, often fist sized or smaller. Tailings piles, located inside creek channels, are cleanly washed; those located farther away from running water support considerable lichen growth. Initially, panning was probably used to extract gold, along with rockers and possibly long toms or sluice boxes. These shallow creek placers may represent activities of the first major incursion by Euroamerican miners during the early gold rush. These marginal placers were briefly and intensively mined during the 1850s. It is also possible that the tailings may result from a second phase of mining in the project vicinity, which peaked in the 1870s.

CC-4 This site is a series of placer mine tailings along Carson Creek. The tailings are variable in their quantity and size. Most comprise relatively small rocks, often fist sized or smaller. Tailings piles located inside creek channels are cleanly washed. Initially, panning was probably used to extract gold, along with rockers and possibly long toms or sluice boxes. Creek placers may represent the activities of the first major incursion by Euroamerican miners during the early gold rush. These marginal placers were briefly and intensively mined during the 1850s. It is also possible that the tailings may result from a second phase of mining in the project vicinity, which peaked in the 1870s.

CC-5 This feature is a series of placer mine tailings along a tributary located east of Carson Creek. Tailings configurations resemble several parallel crescent-shaped windrows located at a bend in the creek and may represent rudimentary ground sluicing. A ditch passes through the tailings. These marginal placers were briefly and intensively mined during the 1850s. It is also possible that the tailings may result from a second phase of mining in the project vicinity, which peaked in the 1870s.

CC-6 Mined ground along a ditch (CC-LF-3) and in the vicinity of the SVR right-of-way appear as a series of low hummocks containing chunks of quartz. The mining is close to an unnamed tributary of Carson Creek but more directly associated with the ditch. This ditch is breached by the SVR, which was completed through the area in 1864. If mining was dependent upon the ditch for a water supply, it probably predates railroad construction. Historic accounts suggest that this mining was done by a Mr. Anderson, under the supervision of Theodore Judah, who subcontracted to grade and build an embankment for the SVR ca. 1864. Anderson's mining activities are alleged to occur about 20 miles from Sacramento and along the SVR right-of-way. Anderson put in sluices along the railroad right-of-way and was able to recover enough gold so that his enterprise was a pure profit (Huffman 1983). It is possible that the mined ground, in the southern extremity of the project area along the SVR right-of-way, may represent rocker settings and sluicing activities of Anderson.

CC-LF-1 This linear feature consists of a ditch which courses the western periphery of the project area near Carson Creek. Its southernmost segment is not contiguous with the northern segment and contains several blow-outs and is washed out by Carson Creek at one point. The ditch

appears to traverse an old homestead (currently occupied), but its location here was not confirmed due to an unfriendly dog. Maximum height of the downslope berm is approximately 3 feet and the maximum width is about 6 feet. The ditch crosses Carson Creek and proceeds eastward towards Euer's Ranch. A concentration of placer tailings (CC-3) and a possible small earthen berm reservoir (about 30 feet diameter) occur at the creek crossing. The ditch may have augmented water naturally available in Carson Creek. This ditch is most probably associated with placer mining. Additional survey may ultimately reveal that ditch segments CC-LF-1 and CC-LF-3 are part of the same system once fed by the Ohio Canal. This main canal originated from the South Fork of the American River and was constructed soon after 1852.

CC-LF-2 A short segment of a rock wall parallels White Rock Road near the entrance to the Euer's Ranch. The wall is dry laid and lichen covered. It has multiple courses with a maximum height of 4 feet and a width of 2.5 feet. It is 55 yards long on the west side of the ranch entrance and 12 yards on the east side of the driveway. One 16d cut nail was noted nearby.

CC-LF-3 This ditch is most evident as a continuous segment in the southern part of the project. Its dimensions are similar to CC-LF-1 (3 feet deep by 6 feet wide). This ditch is most probably associated with placer mining. Additional survey may ultimately reveal that ditch segments CC-LF-1 and CC-LF-3 are part of the same system once fed by the Ohio Canal. This main canal originated from the South Fork of the American River and was constructed soon after 1852. A segment of this ditch is breached by the SVR, which passed through the area ca. 1864. Therefore, is probably ceased to function after than time.

CC-IF-1 An isolated quartz projectile point was observed on a slightly elevated knoll near a tributary located east of Carson Creek. The point may date from A.D. 500 to A.D. 1500. It is finely flaked, especially considering the difficulty in working the local toolstone quartz.

Fencelines and Roads. Fencelines and roads were not formally recorded in this field survey.

Problematic Resources. A series of irregular-shaped mounds, containing soil and rock and measuring about 1.5 meters in diameter and 0.5 meter high were observed in various locales throughout the project area. They do not appear to be mining related and no artifacts were found in association. They may be an element of the natural micro-topography, but additional study is needed to ultimately determine their origins. Wilson (1986) refers to "multitudes of ants that have left the pasture lands well-punctuated with their mounded little settlements." (Payen pers. comm., 1995) also refers to naturally occurring mounds on pasture lands.

Traditional Cultural Properties. No Native American cultural properties were identified within the project area. The El Dorado Indian Council and local Miwok were contacted regarding the potential for disturbance of Nisenan and Miwok artifacts. Local Miwok expressed concern regarding potential cultural artifacts on the project site (Mainery, pers. comm., 1995).

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

The El Dorado County General Plan provides objectives and policies related to cultural resources in the Conservation and Open Space Element.

Objective 7.5.1: Protection of Cultural Heritage. Creation of an identification and preservation program for the County's cultural resources.

Policy 7.5.1.3: Cultural resource studies shall be conducted prior to approval of discretionary projects. Studies may include, but are not limited to, record searches through the North Central Information Center at California State University, Sacramento, field surveys, subsurface testing and/or salvage excavations. The avoidance and protection of sites shall be encouraged.

4.11.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

A determination of significance is commonly based upon the criteria of importance as listed in the CEQA Guidelines (Appendix K), which are modeled after National Register guidelines. Important considerations in these criteria focus upon a cultural property's research potential, uniqueness and integrity (relative to other cultural resources similar in kind). A resource is considered to have integrity when it retains sufficient physical character to convey to the viewer an association with prehistoric or historic patterns, persons, designs, or technologies. A significant property must have the potential to contribute important information towards scholarly research, which can then be conveyed to the general public.

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association.

For the purposes of CEQA, an important archaeological resource is one which meets one or more of the following criteria:

A. Is associated with an event or person of:

   1. Recognized significance in California or American history or
   2. Recognized scientific importance in prehistory.

B. Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable or archaeological research questions;

C. Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind;

D. Is at least 100 years old and possesses substantial stratigraphic integrity; or

E. Involves important research questions that historical research has shown can be answered only with archaeological methods.

Under Criterion A, a cultural resource may be significant if it is associated with the lives of important historical personalities and/or if it is associated with an important historical event or theme and retains sufficient data needed to study and/or interpret this event or theme.

Criteria C and D require that a cultural property embody the distinctive characteristics of a type, period, or method of construction, or that it possess high artistic values, or that it represent a significant and distinguishable entity whose components may lack individual distinction. In this regard, a cultural property should represent a typical technology of a significant era or possess a special or particular quality such as oldest, best example, largest, or last surviving example of its kind and it must be at least 100 years old. To possess integrity a resource must retain sufficient physical character so that it conveys an association with historic patterns, persons, designs, or technologies. It should be relatively free of modern-day intrusions that can compromise a property's setting. A property that is clearly visible and interpretable evokes a strong sense of feeling when viewed by contemporary observers.

Finally, Criteria B and E specify that a cultural property has yielded, or may be likely to yield, information important in history, in that it can provide critical data which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable research questions. Furthermore, the property should involve important research questions that historical research has shown can be answered only with archaeological methods.

IMPACTS

> IMPACT 4.11-1: ARCHAEOLOGICAL SITES CC-2, CC-3, CC-4, CC-5, CC-6, AND ARCHAEOLOGICAL LINEAR FEATURES CC-LF-1, CC-LF-2, AND CC-LF-3. ALL OF THESE SITES ARE LOCATED WITHIN AREAS PLANNED FOR CONSTRUCTION DISTURBANCE, INFRASTRUCTURE OR RECREATIONAL IMPROVEMENTS, OR URBAN LAND USE DEVELOPMENT. IMPLEMENTATION OF PROJECT FEATURES COULD RESULT DIRECTLY OR INDIRECTLY TO THE DISTURBANCE OR DESTRUCTION OF ONE, OR MORE, OF THESE ARCHAEOLOGICAL RESOURCES. THESE IMPACTS ARE CONSIDERED TO BE POTENTIALLY SIGNIFICANT.

Archaeological site CC-2 is located in the southeastern portion of the project site within an area planned for business park development. Development of business park uses may result direct or indirectly to the disturbance or destruction of CC-2 and, therefore, is considered to be a potentially significant impact.

Archaeological sites CC-3, CC-4, CC-5, and CC-6 are located within drainage areas that are proposed for open space within the Specific Plan. These areas are planned to include flood control (e.g., retention or detention basin) and recreational trail improvements. Implementation of these improvements could potentially result in the direct and/or indirect disturbance or destruction of these archaeological resources.

Indirect impacts could occur from the introduction of the general public into the area. These impacts are considered to be potentially significant.

Archaeological linear features CC-LF-1, CC-LF-2, and CC-LF-3 traverse areas that are planned for open space, residential, commercial, and park development within the Specific Plan. Development within these areas may result directly or indirectly in the disturbance of destruction of these linear elements. These impacts are considered to be potentially significant.

IMPACT 4.11-2: ARCHAEOLOGICAL SITE CC-1 AND ARCHAEOLOGICAL ARTIFACT IF-3. CC-1 AND IF-3 WERE DETERMINED TO BE NOT IMPORTANT ARCHAEOLOGICAL RESOURCES. THEREFORE, THE PROJECT'S IMPACT ON THESE RESOURCES WOULD BE LESS THAN SIGNIFICANT.

Archaeological site CC-1 is located in the northern portion of the project site within an area planned for residential development (R(3)). Development of residential uses in R(3) may result in construction impacts to CC-1 by grading, earth moving, or use of other equipment. Subsequent to development, indirect impacts could result with increased human activity or disturbance to CC-1. However, this resource does not meet any of the significance criteria, because it is of diminished integrity and is not an outstanding example of type, style or method of construction. Therefore, this impact is considered to be less than significant.

Archaeological artifact IF-3 was located in the southeastern portion of the project site in an area proposed for residential use (R(20)). This isolated find was collected during the field survey and was determined to not possess a level of significant that meets the legal criteria. Therefore, the project's impact on this artifact is considered less than significant.

IMPACT 4.11-3: OTHER HERITAGE RESOURCES. AREAS ON THE PROJECT SITE THAT WERE SUBJECT TO A GENERAL RECONNAISSANCE, CURSORY COVERAGE, OR NOT INSPECTED DURING THE FIELD SURVEY MAY CONTAIN HERITAGE RESOURCES THAT WERE NOT DETECTED DURING THE FIELD SURVEY. IN ADDITION, HERITAGE RESOURCES MAY BE BURIED OR HAVE BEEN CONCEALED DURING THE FIELD SURVEY. DUE TO THIS POTENTIAL, THE PROJECT MAY IMPACT THESE OTHER HERITAGE RESOURCES; THEREFORE, THIS IMPACT IS CONSIDERED TO BE POTENTIALLY SIGNIFICANT.

The level of reconnaissance during the field review was based on a literature search and highly sensitive areas that may contain heritage resources were fully surveyed. Other areas of the site were subject to a general reconnaissance, cursory coverage, or not inspected, although they may contain heritage resources that were not detected. Heritage resources may be buried or have been concealed during the field survey. Due to the potential for other resources on the site, project development and use could result in damage or loss of heritage resources; consequently, this impact is considered to be potentially significant.

IMPACT 4.11-4: TRADITIONAL CULTURAL PROPERTIES. ALTHOUGH NO NATIVE AMERICAN CULTURAL PROPERTIES WERE IDENTIFIED WITHIN THE PROJECT SITE, SITES OF ETHNIC/RELIGIOUS SIGNIFICANCE TO DESCENDANTS OF THE COUNTY'S NATIVE AMERICAN POPULATION MAY BE PRESENT ON THE SITE. THIS IS CONSIDERED A POTENTIALLY SIGNIFICANT IMPACT.

No Native American cultural properties were identified within the project site (Carter, pers. comm., 1995); however, sites of ethnic/religious significance to descendants of the County's Native American population may be present on the site. This is considered a potentially significant impact.

IMPACT 4.11-5: GENERAL PLAN CONSISTENCY - CULTURAL RESOURCES. CULTURAL RESOURCES HAVE BEEN FOUND ON THE PROJECT SITE AND MITIGATION MEASURES/CONDITIONS OF APPROVAL REQUIRE MEASURES TO ENSURE THAT THEY ARE SALVAGED, OR OTHERWISE PROTECTED. CONSEQUENTLY, THE SPECIFIC PLAN SITE WOULD BE DEVELOPED CONSISTENT WITH GENERAL PLAN POLICIES AND LESS-THAN-SIGNIFICANT IMPACTS WOULD RESULT.

General Plan Objective 7.5.1 and Policy 7.5.1.3 provide for the protection of cultural resources through avoidance/protection or through testing and salvaging, if necessary. As discussed above, the project site contains cultural resources. Without precautionary measures, a potential loss of cultural resources could occur through site development, and human occupation and use. Approval of the proposed Specific Plan would, however, occur in accordance with mitigation measures contained in this EIR, and any additional conditions of approval required by El Dorado County. Accordingly, measures to protect known and potential cultural resources would be required with implementation of the Specific Plan. Consequently, the Specific Plan site would be developed consistent with General Plan Objective 7.5.1 and Policy 7.5.1.3 and less-than-significant impacts would result.

4.11.3 MITIGATION MEASURES

Mitigation measures are provided below to reduce significant or potentially significant cultural resources impacts of the proposed project to the extent feasible. As discussed in Section 4.1 (Introduction to Environmental Analysis), mitigation measures are numbered corresponding to the number of the impact to be mitigated.

MITIGATION MEASURE 4.11-1: ARCHAEOLOGICAL SITES CC-1, CC-2, CC-3, CC-4, CC-5, CC-6 AND ARCHAEOLOGICAL LINEAR FEATURES CC-LF-1, CC-LF-2, AND CC-LF-3.

a) Prior to grading and construction activities, significant cultural resources found on the project site shall be recorded or described in a professional report and submitted to the North Central Information Center at California State University at Sacramento.

b) During grading and construction activities, the name and telephone number of an El Dorado County-approved, licensed archaeologist shall be available at the project site. In the event a heritage resource is encountered during grading or construction activities, the project applicant shall insure that all activities will cease in the vicinity of the recovered heritage resource until an archaeologist can examine the find in place and determine its significance. If a find is authenticated, the archaeologist shall determine proper methods of handling the resource(s) for transport and placement in an appropriate repository. Grading and construction activities may resume, after the resource is either retrieved or found to be not of consequence.

MITIGATION MEASURE 4.11-3: OTHER HERITAGE RESOURCES.

Apply mitigation measure 4.11-1 and no further mitigation is required.

MITIGATION MEASURE 4.11-4: TRADITIONAL CULTURAL PROPERTIES.

Apply mitigation measure 4.11-1 and no further mitigation is required.

4.11.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

After implementation of the above mitigation measures, impacts to cultural resources would be considered less than significant.

4.12 SCHOOLS

4.12.1 ENVIRONMENTAL SETTING

The proposed project would be served by two school districts: Latrobe School District for elementary and middle school, and the El Dorado Union High School District (EDUHSD) for high school. Students may, or may not, also be served by the Buckeye Union School District (BUSD). Table 4.12-1 lists the enrollment and remaining capacity at the schools within each district. The school districts that would, or could, serve the project student population are described below.

LATROBE SCHOOL DISTRICT

The Latrobe School District consists of two schools (Table 4.12-1): Latrobe School (grades K-4) and Miller's Hill School (grades 5-8). Enrollment for the 1993/94 school year totaled 144 students. The school district is currently operating at 83% of its capacity of 174 students under District standards. Latrobe School District's School Facility Fee Justification Report & 1994 Ten Year School Facilities Plan reveals that the District anticipates an increase in student enrollment from 144 students to 1,945 by school year 2003/04, a projected 1,251% increase. These projections take into account the Carson Creek Specific Plan (previously Carson Creek/Euer Ranch) development as it was proposed when the Facilities Plan was prepared. The District plans to levy fees on future development within the District (Latrobe School District 1994).

BUCKEYE UNION SCHOOL DISTRICT

BUSD serves the communities of El Dorado Hills, Cameron Park, and Shingle Springs. BUSD includes five schools (Table 4.12-1): Buckeye Elementary School (grades K-6), William Brooks Elementary School (K-6), Blue Oak Elementary School (K-5), Silva Valley Elementary School (K-6), and Camerado Springs Middle School (grades 6-8). The District currently has a total regular enrollment of 3,302 students, plus 37 special education students. Current District capacity with portable classrooms is 3,710 students. BUSD projects that regular enrollment will increase to approximately 4,500 by year 2000/01. A new 900-student capacity middle school, Rolling Hills Middle School, has been approved and would be constructed once funding becomes available (Flanigan 1994). It is anticipated that funding would be available with passage of Proposition 203, the school bond initiative, in the March 1996 elections (Flanigan, pers. comm., 1996).

TABLE 4.12-1
SCHOOL DISTRICT ENROLLMENT AND CAPACITY

District/School	Grades	Current Capacity	Current Enrollment	Space Remaining
Latrobe School District [1]	K-8	174	144	30
Latrobe Elementary School	K-4	87	71	16
Miller's Hill Middle School	5-8	87	73	14
Buckeye Union School District [2]	K-8	3,710	3,339 [3]	408
Blue Oak Elementary School	K-5	772	803	-31
Buckeye Elementary School	K-6	664	656	8
William Brooks Elementary School	K-6	750	390	360
Silva Valley Elementary School	K-6	546	619	-73
Camerado Springs Middle School	6-8	978	529	449
Rolling Hills Middle School	6-8	0	305	-305
El Dorado Union High School District [2]	9-12	6,040 [4]	5,454 [5]	586
El Dorado High School	9-12	1952	1793	159
Oak Ridge High School	9-12	1816	1597	219
Ponderosa High School	9-12	1972	1841	131

1 1993-1994 enrollment figures
2 1994-1995 enrollment figures
3 includes 37 special education students
4 includes capacity for 300 continuing and alternative education students
5 includes enrollment of 223 continuing and alternative education students

Source: Michael Brandman Associates 1996

EL DORADO UNION HIGH SCHOOL DISTRICT

The EDUHSD office is located in Placerville, California. EDUHSD includes three high schools (each grades 9-12): El Dorado High School, Oak Ridge High School, and Ponderosa High School. The two remaining schools within the District are either continuation or alternative institutions (El Dorado County 1996a). Originally, EDUHSD schools had a total capacity of 4,336 students. The use of portable classrooms has increased current District capacity to 6,040 students. As of September 1994, enrollment at EDUHSD schools totalled 5,454 students (Table 4.12-1) (Walker 1994).

EDUHSD Facilities Master Plan (FMP) for 1994/95-1998/99 reveals that the District anticipates student enrollment to increase to 6,558 by school year 1998/99, and that the District has planned for improvements to increase District capacity to 6,647 by 1998/99. The anticipated increase in District capacity will be accomplished through expansion and modernization of the existing facilities. The District is also anticipating the future construction of two new high schools with capacities of 1220 to 1600 students per school. The District intends to levy fees on future development projects located within the District to accommodate school needs (El Dorado Union High School District 1994).

EXISTING FUNDING MECHANISMS

School districts can levy and collect school facility fees from developers to generate revenue to accommodate the students associated with regional growth. Currently, state law limits schools fees to $1.72 per square foot for new residential developments, and $0.28 per square foot for commercial or industrial development projects (Government Code §65995). State legislation authorizing and limiting school facilities fees specify that the fees constitute "full mitigation" of impacts. Latrobe and EDUHSD have proposed to impose the maximum impact fees allowed under Government Code §65995. Because western El Dorado County has a two-tiered school district system where two school districts serve a given area, developer fees are split between the high school district (i.e., EDUHSD) and the elementary/middle school district (i.e., Latrobe).

In lieu of the school impact fees allowed under government code §65995, the El Dorado County Board of Supervisors Resolution 220-91 authorizes a school impact fee based on the impact of residential developments on school districts. Resolution 220-91 fees are based on the number of single- and multi-family dwelling units proposed, but do not apply to commercial or industrial square footage.

In addition to the imposition of impact fees, the State Department of Education provides Average Daily Attendance (ADA) funding to schools based on their attendance statistics. ADA funding is provided to cover operating costs; it is not intended to finance capital expenditures. As school attendance increases, so do ADA subsidies.

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

The Public Services and Utilities Element of the El Dorado County General Plan (General Plan), as adopted January 23, 1996, provides the following objectives and policies relevant to schools and applicable to the proposed project:

Objective 5.8.1: School Capacity: Require that adequate school capacity exists and/or appropriate mitigation consistent with State law to serve new residents concurrent with development.

Policy 5.8.1.1: School districts affected by a proposed development shall be relied onto evaluate the development's adverse impacts on school facilities or the demand therefor. No development that will result in such impacts shall be approved unless:

1. The applicant and the appropriate school district(s) have entered into a written agreement regarding the mitigation of impacts to school facilities; or

2. The impacts to school facilities resulting from the development are mitigated, through conditions of approval, to the greatest extent allowed by State law.

The County shall condition or deny a request for a quasi-legislative approval, including any such request necessary for a proposed development, if the development impact fees allowed by State law for development projects would not result in the full avoidance or reduction to an acceptable level of the impacts of the approval or development on school facilities or the demand therefor, or the County shall condition or deny such a request, unless the applicant or developer enters into a development agreement with the County requiring that the applicant or developer enter into a written agreement with the appropriate school district(s) for the mitigation of impacts to school facilities or the demand therefor.

Policy 5.8.1.2: Collaborate with County school districts for the exchange of data and the preparation of coordinated student enrollment projections.

Policy 5.8.1.3: Whenever feasible develop joint (shared) school facilities, recreational facilities, and educational and service programs between school districts and other public agencies.

Policy 5.8.1.4: In developing conditions of approval for projects with adverse impacts on school facilities or the demand therefore, the County should consider the use of Mello-Roos Districts, where appropriate, to lessen or avoid such impacts.

Policy 5.8.1.5: Where the County, in granting a quasi-adjudicatory approval, has determined that the limited school impact mitigation allowed by State law has not resulted in the full avoidance or reduction to an acceptable level of the impacts to school facilities or the demand therefor resulting from a proposed development, the County shall consider the reduction of residential densities, the phasing of development, or the use of development agreements to achieve whatever additional mitigation is necessary to avoid or reduce to acceptable levels the fiscal and physical impacts of the contemplated development on school facilities or the demand therefor.

Policy 5.8.1.6: The County will coordinate with the school districts as to the development of additional land use and zoning standards requiring specific mitigation of school impacts from proposed development.

Objective 5.8.2 - Land for School Facilities: Support the identification and acquisition of land for the purpose of siting new school facilities to serve existing and future residents.

Policy 5.8.2.1: Where feasible, elementary schools shall be centrally located within the communities they serve.

Policy 5.8.2.2: The affected school district shall be relied upon to review development applications to determine the ability of the district to serve the new development. The level of educational services shall not be reduced below acceptable levels as a consequence of new development to the extent permitted by State law.

Policy 5.8.2.3: Explore the potential for expanding both public and private higher education and continuing education opportunities including attracting a four-year college or university to the County.

Policy 5.8.2.4: Specific plans for Planned Communities shall identify and set aside land for new schools approvable under Title 5 Standards to serve new communities. A funding mechanism for site acquisition and construction shall be provided. School site dedication shall be considered as part of the funding mechanism.

Policy 5.8.2.5: The County shall cooperate with the school districts in identifying the potential location of new school sites. All new public school sites shall be reviewed for General Plan consistency.

4.12.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

A comparison of classroom need with the proposed project and available capacity is assessed to determine whether the number of classrooms required to accommodate the estimated number of new students generated by the project would result in a significant impact on existing school district resources. If the number of classrooms required can be accommodated by existing school district facilities, significant impacts would not occur. Overcapacity of a district by less than one classroom is assumed to be resolved by distributing the excess students among existing classes. An increase of one or more classrooms beyond capacity would be considered a significant impact.

IMPACTS

Over the past few years, in anticipation of growth in the western slope area, the Latrobe School District, Buckeye Union School District, and the Rescue School District evaluated and reconfigured school district boundaries in accordance with anticipated projects (Flanigan 1995). During that time, student generation associated with the Carson Creek project was assigned to the Latrobe School District for elementary and middle school education. A description of potential impacts to the Latrobe School District, Buckeye Union School District (BUSD), and the El Dorado Union High School District (EDUHSD) is provided below.

IMPACT 4.12-1: LATROBE SCHOOL DISTRICT ELEMENTARY SCHOOL. IT IS UNCERTAIN WHETHER OR NOT THE CARSON CREEK ELEMENTARY SCHOOL WOULD BE AVAILABLE IN TIME TO ACCOMMODATE PROJECT-GENERATED STUDENTS DUE TO TIME REQUIREMENTS FOR PROCESSING, APPROVING, AND CONSTRUCTING A NEW SCHOOL. THIS IMPACT IS CONSIDERED POTENTIALLY SIGNIFICANT.

General Impact Discussion

The proposed project site lies within the Latrobe School District, which currently has an available capacity of approximately 30 students. Buildout of the Specific Plan would generate an estimated 1,324 elementary school (grades K-6) students, based on a generation factor of 0.49 elementary school students per household unit. Actual student generation could be less with the establishment of school facilities on the residentially-designated school sites (residential areas R(5) and R(18)). As discussed in Latrobe's *School Facility Fee Justification Report*, project growth in the District, including development under the proposed Specific Plan, far exceeds the available capacity of existing District facilities; therefore, additional elementary school facilities are necessary to accommodate district-wide population growth.

Proposed Specific Plan Provisions

The Specific Plan proposes the two public school sites for annexation to the Latrobe School District as discussed below.

The proposed 11.3-acre elementary school site would be located on residentially-designated land (residential area R(5)) in the northern portion of the site, within a short distance from White Rock Road. The elementary school site could initially serve as a K-8 school, if necessary, and would be converted to a K-6 grade elementary school when the middle school, if needed, is constructed. Once completed, the proposed elementary school would have a student capacity of approximately 700. The school is planned in the first phase of the Specific Plan buildout. The elementary school site would be located adjacent to the proposed 4-acre local park, which could allow for joint-use of park facilities.

Facilitation of a new school requires a series of State-mandated processes including environmental review, development of preliminary plans, and coordination and approval by school agencies. Processing, approval, and construction of a school can occur in as short a time as three years (approximately) although it could also be longer. The applicant is conducting preliminary processing of the proposed Carson Creek Specific Plan elementary school at this time. Due to uncertainties in the timing of Specific Plan approval and school approval, other elementary school facilities may need to be made available.

Since it is uncertain that the Carson Creek elementary school would be available in time to accommodate project-generated students, the proposed project could result in a potentially significant impact to elementary schools.

IMPACT 4.12-2: LATROBE SCHOOL DISTRICT MIDDLE SCHOOL. IT IS UNCERTAIN WHETHER OR NOT THE CARSON CREEK ELEMENTARY/MIDDLE SCHOOL WOULD BE AVAILABLE IN TIME TO ACCOMMODATE PROJECT-GENERATED STUDENTS DUE TO TIME REQUIREMENTS FOR PROCESSING, APPROVING, AND CONSTRUCTING A NEW SCHOOL. THIS IMPACT IS CONSIDERED POTENTIALLY SIGNIFICANT.

General Impact Discussion

Buildout of the Specific Plan would generate an estimated 378 middle school (grades 7-8) students, based on a generation factor of 0.14 middle school students per household. Actual student generation could be less with the establishment of school facilities on residentially-designated school sites (residential areas R(5) and R(18)). Because projected growth in the Latrobe School District exceeds available capacity of existing facilities, additional middle school facilities are necessary to accommodate district-wide population growth.

Proposed Specific Plan Provisions

A 20-acre middle school site, located on residentially-designated land (residential area R(18)) in the southern portion of the project site, is proposed on an as-needed basis. If the construction of a middle school is deemed necessary to accommodate students generated by Specific Plan buildout, the middle school site would be available for construction of a school with an anticipated capacity of approximately 1,200 students. The Carson Creek Specific Plan is anticipated to generate roughly 400 of the middle school students. The school would accommodate an additional 800 students from the El Dorado Hills area.

The specific plan states that the proposed elementary school would double as a middle school (K-8 grades) initially, and be converted to a K-6 grade as demand shifts, and as middle school facilities become available. Much like the elementary school condition with the proposed project, however, it is uncertain when the elementary/middle school could be made operational on the Carson Creek site in time to accommodate students. Consequently, the proposed project could result in generation of middle school students without facilities secured to accommodate the students. The proposed project would, therefore, result in a potentially significant impact to middle schools.

IMPACT 4.12-3: BUCKEYE SCHOOL DISTRICT. BUSD WOULD ONLY ACCEPT CARSON CREEK STUDENTS IF SPACE WERE AVAILABLE, THE LATROBE SCHOOL DISTRICT CONCURRED WITH

BUSD STUDENT ACCOMMODATION, AND NECESSARY AGREEMENT(S) WITH THE LATROBE SCHOOL DISTRICT WERE IN PLACE. IT IS ANTICIPATED, THEREFORE, THAT THE PROPOSED PROJECT WOULD NOT HAVE A SUBSTANTIAL AND ADVERSE AFFECT ON BUSD AND LESS-THAN-SIGNIFICANT IMPACTS WOULD RESULT.

To alleviate the potential initial classroom shortage project impacts to the Latrobe School District, elementary and middle school students could be bussed to BUSD schools until the onsite schools become operational. Although the project site does not lie within BUSD, it is anticipated that elementary and middle school students generated by buildout of the Specific Plan could initially attend schools within this district. This would partially alleviate potential impacts on the Latrobe School District until the necessary school facilities, including those proposed for the project site, are constructed. Bus transportation service of project-generated students to BUSD schools would be considered by BUSD, depending on available space at that district (Flanigan, pers. comm., 1996).

BUSD currently has an available excess capacity with portables of 402 students. BUSD anticipates the construction of additional school facilities to accommodate projected growth within the District. As described above, BUSD would accommodate Carson Creek elementary/middle school students under certain conditions: that BUSD school facilities are available at the time; that the Latrobe School District agrees that BUSD accept the students; and that a Inter-district Agreement be made for such arrangements (Flanigan 1995). Due to the anticipated developments in the BUSD, e.g., the Serrano project and, potentially, Valley View, the District may not have available space at the time of need for Carson Creek students. Since, however, BUSD would not accept Carson Creek students without first having the space, and necessary agreement(s) with the Latrobe School District, it is anticipated that the proposed project would not have a substantial and adverse affect on the district and less-than-significant impacts would result.

EL DORADO UNION HIGH SCHOOL DISTRICT

IMPACT 4.12-4: EL DORADO UNION HIGH SCHOOL DISTRICT. SUFFICIENT CAPACITY MAY NOT BE AVAILABLE AT EDUHSD FACILITIES TO ACCOMMODATE STUDENTS GENERATED BY SPECIFIC PLAN BUILDOUT. DEPENDING ON THE TIMING OF CARSON CREEK DEVELOPMENT, EDUHSD FACILITIES MAY NOT BE AVAILABLE TO SERVE PROJECT-GENERATED STUDENTS. THIS WOULD BE CONSIDERED A POTENTIALLY SIGNIFICANT IMPACT.

General Impact Discussion

Buildout of the Specific Plan would generate an estimated 567 high school students, based on a generation factor of 0.21 high school students per household unit. Actual student generation may be lower if residentially-designated school sites are developed as schools rather than residential uses. These students

would attend EDUHSD facilities, and likely Oak Ridge High School. Although EDUHSD, based on 1994-1995 enrollment figures, may have sufficient capacity with portable classrooms (586 students) to accommodate the students generated by Specific Plan buildout, District facilities would be required to accommodate other District-wide growth. As discussed previously, additional high school facilities, including several expansions and two new high schools with capacities of 1,220 to 1,600 students per school, are currently planned to accommodate regional growth, including gradual buildout of the Specific Plan (El Dorado Union High School District 1994).

Proposed Specific Plan Provisions

The Specific Plan does not provide any measures that expressly address the impacts of Specific Plan development on EDUHSD. However, development under the Specific Plan would be subject to impact fees pursuant to either El Dorado County Board of Supervisors Resolution 220-91 or Government Code §56995. EDUHSD would receive 39% of these impact fees (EDUHSD 1994). Because Currently, there is insufficient capacity at El Dorado Union facilities to accommodate students generated by Specific Plan buildout. Depending on the timing of development and occupancy of the proposed Carson Creek residences, EDUHSD facilities may not be available for project-generated students and potentially significant impact to high schools would result.

GENERAL PLAN CONSISTENCY

> IMPACT 4.12-5: GENERAL PLAN CONSISTENCY. SCHOOL FACILITIES ARE PROPOSED UNDER THE SPECIFIC PLAN TO ACCOMMODATE STUDENTS GENERATED BY THE PROJECT AT BUILDOUT. ULTIMATELY, THE PROJECT WOULD BE CONSISTENT WITH GENERAL PLAN POLICIES. THIS WOULD BE CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

No inconsistencies with El Dorado County General Plan policies are anticipated. School facilities are proposed under the Specific Plan to serve new residents concurrent with development under the Plan. Mitigation for school impacts (Mitigation Measure 4.12-1) would be consistent with Policies 5.8.1.4, 5.8.1.5, and 5.8.1.6 and state law. The proposed school facilities would be located adjacent to parks to allow for joint use of parks facilities. This would be considered a less-than-significant impact.

4.12.3 MITIGATION MEASURES

Mitigation measures are provided below to reduce significant or potentially significant school impacts of the proposed project to the extent feasible. As discussed in Section 4.1 (Introduction to Environmental Analysis), mitigation measures are numbered corresponding to the number of the impact to be mitigated.

MITIGATION MEASURE 4.12-1: ELEMENTARY SCHOOL.

a) The project applicant shall pay school district developer fees in accordance with Board of Supervisors Resolution 220-91 prior to issuance of a building permit. The fees shall be the amount in effect at the time building permits are issued.

b) The applicant shall ensure that proposed school facilities are in place prior to issuance of occupancy permits. Assurances can be made in various ways such as the following:

   1. Creation of Mello-Roos district or other financing entity/arrangement to finance construction of the elementary school at the first possible time following approval of the school site and design from the California State Department of Education or its successors;

   2. Provisions for temporary school facilities to accommodate additional students including, but not limited to, portable classrooms, lease of commercial space in the El Dorado Hills Business Park, and other temporary facilities;

   3. Any combination of the aforementioned, or other arrangement, financial agreement, and/or inter-district agreement between the applicant and relevant school district(s), and with evidence of appropriate approvals filed with the El Dorado County Planning Department.

MITIGATION MEASURE 4.12-2: MIDDLE SCHOOL.

Apply mitigation measure 4.12-1 and no further mitigation is required.

MITIGATION MEASURE 4.12-4: EL DORADO UNION HIGH SCHOOL DISTRICT.

Apply Mitigation Measure 4.12-1(a) and no further mitigation is required.

4.12.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Following implementation of the above mitigation measures, impacts on school services would be reduced to a less-than-significant level.

4.13 FIRE PROTECTION AND AMBULANCE SERVICES

4.13.1 ENVIRONMENTAL SETTING

EL DORADO HILLS FIRE DEPARTMENT

Current Conditions

Fire protection and emergency medical services to the El Dorado Hills area are provided by the El Dorado Hills Fire Department (Department). The northern portion of the Specific Plan is within the Department's service district (El Dorado Hills Water Fire District); the remaining majority of the Specific Plan area is within the Department's sphere of influence. The Department's service district for fire protection and emergency medical services encompasses approximately 30,000 acres (47 square miles) and serves an estimated population of 14,000. The Department engages in mutual and automatic aid agreements with surrounding and adjacent fire departments. It has a current annual operating budget of approximately $2.2 million (El Dorado Hills Fire Department 1994).

The Department operates two stations: Station One at 990 Lassen Lane, and Station Two at 2180 Francisco Drive. The Department has 18 paid firefighters and 27 volunteers. The current firefighter to population ratio is 1.9 firefighters per 1,000 population based on 3 volunteer firefighters equal to one paid firefighter. This ratio exceeds the Department's goal of 1.5 firefighters per 1,000 population. The Department's equipment includes 3 Type 1 (1,250-1,500 gallons per minute [gpm]) fire engines that are typically used for structural fires; 2 Type 3 (350-500 gpm) fire engines that are typically used for extinguishing wildland fires; and 4 utility vehicles (Veercamp 1994). Currently, the Department provides basic life support services to the service district (El Dorado Hills Fire Department 1994).

Average response times to emergency incidents range are 5 minutes or less from Stations One and Two to the western portion of the service district and regions adjacent to U.S. Highway 50. Response times to the remaining eastern portion of the service district range from 5 to 10 minutes. The Department has set an optimum driving response time of 5 minutes or less to 80% of the population (El Dorado Hills Fire Department 1994).

Planned Upgrades

The Department's 1993-1998 Five Year Plan provides a schedule for anticipated hiring, and apparatus and facilities improvements to enable the Department to accommodate population growth in the service area. The Five Year Plan recognizes the Specific Plan as a project that is in its planning stage

(El Dorado Hills Fire Department 1993). The Department has initiated several improvements that it expects to be implemented in 1995: 1) an additional Type 3 fire engine will be available by May 1995; and 2) the Department will expand its emergency medical services through the addition of advanced life support service by March 1995 (El Dorado Hills Fire Department 1994).

The Department plans to open Station Three in the Bass Lake area by 1998/99 to accommodate growth in the eastern portion of the district and to provide the same level of service available to the rest of the service district. Station Three would also provide an additional medic unit. The Department anticipates that with Station Three manned on a 24-hour basis, response times to approximately 80% of the service district would be within optimum levels (five minutes or less) (El Dorado Hills Fire Department 1993).

Long-term plans include the opening of a Station Four on a one-acre site in the El Dorado Hills Business Park. The Department currently owns the site and plans to construct Station Four when the Business Park shows a "substantial increase" in the number of commercial buildings. Current development in the Business Park is approximately 150,000 square feet annually, which is not sufficient to justify opening Station Four. The Department anticipates that Station Four would be opened once the Business Park reaches one-half to two-thirds of projected buildout (Veercamp, pers. comm., 1994). The current funding mechanism for the Department is collection of annexation fees and development fees. Annexation fees are currently $500 per acre or parcel. Development fees are $500 per dwelling unit and $0.14 (with sprinklers) or $0.28 (without sprinklers) per square foot for non-residential structures (i.e., commercial, office, and industrial).

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

The Public Services and Utilities Element of the El Dorado County General Plan (General Plan) provides the following pertinent fire protection and medical emergency services objectives and policies:

> **Policy 5.7.1.1:** Prior to approval of new development, the applicant will be required to demonstrate that adequate emergency water supply, storage, conveyance facilities, and access for fire protection either are or will be provided concurrent with development.
>
> **Policy 5.7.4.1:** Prior to approval of new development, the applicant shall be required to demonstrate that adequate medical emergency services are available and that adequate emergency vehicle access will be provided concurrent with development.
>
> **Policy 5.7.4.2:** Prior to approval of new development, the Emergency Medical Services Agency shall be requested to review all applications to determine the ability of the department to provide protection services. The ability to provide protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.

In addition, Policy 5.1.2.2 of the County's General Plan states that provision of public services to new discretionary development "shall not result in a reduction of service below minimum established standards to current users." Minimum fire district response levels are an 8-minute response to 80% of the population for Community Regions and a 15 to 45-minute response for Rural Centers and Rural Regions. Minimum ambulance standards are a 10-minute response to 80% of the population for Community Regions and a 20-minute response in Rural Regions and "as quickly as possible" in wilderness areas.

4.13.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

A significant impact to Fire Department services would occur with one or more of the following:

- development that would result in an unacceptable level of fire protection service to the service area;
- development that would result in an unacceptable level of emergency medical service to the service area; or
- an inconsistency would result between the Specific Plan and the El Dorado general Plan.

IMPACTS

IMPACT 4.13-1: FIRE AND EMERGENCY MEDICAL SERVICES. THE PROPOSED PROJECT WOULD INCREASE THE DEMAND FOR FIRE AND EMERGENCY MEDICAL SERVICES TO THE PROJECT SITE. ALTHOUGH THE EL DORADO HILLS FIRE DEPARTMENT'S EXISTING PERSONNEL AND EQUIPMENT WOULD NOT BE ABLE TO PROVIDE ADEQUATE LEVEL OF SERVICE TO THE PROPOSED PROJECT, THE DEPARTMENT'S FUNDING MECHANISMS WOULD ENSURE THAT SUFFICIENT FUNDS ARE AVAILABLE TO PROVIDE ADDITIONAL PERSONNEL, EQUIPMENT, AND FACILITIES TO SERVE THE PROJECT-GENERATED NEED. THEREFORE, THE PROPOSED SPECIFIC PLAN WOULD RESULT IN A LESS-THAN-SIGNIFICANT IMPACT ON FIRE AND MEDICAL SERVICES.

General Impact Discussion

Buildout of the Specific Plan land uses would result in a population increase of up to approximately 7,565 people in the area, generating an increased demand for fire and emergency medical services. Based on the Department's goal of 1.5 firefighters per 1,000 population, buildout of the Specific Plan would generate the need for up to 11 additional firefighters. Estimated emergency response times to the proposed project site would be less than 5 minutes (El Dorado Hills Fire Department 1993).

generate the need for up to 11 additional firefighters. Estimated emergency response times to the proposed project site would be less than 5 minutes (El Dorado Hills Fire Department 1993).

Proposed Specific Plan Provisions

The proposed Specific Plan identifies that fire protection services would be provided by the El Dorado Hills Fire Department. The Specific Plan identifies that a planned fire station in the El Dorado Hills Business Park would serve the Specific Plan area. The Specific Plan does not include provisions to annex the remainder of the Specific Plan area within the Department's service district or provide adequate fire protection or emergency medical services. However, in 1990, the project applicant filed an application for annexation of the remainder of the Specific Plan area into the El Dorado Hills County Water Fire District. Currently, the annexation process is still in progress. The annexation process would be required to be complete prior to approval of a subdivision tract map.

The Department has funding mechanisms to provide additional personnel and equipment. It has an annexation fee and a development fee. The Department also receives tax revenues. These funding mechanisms would be adequate to provide additional personnel and equipment since the proposed project will result in a net fiscal increase to the Department (see Chapter 5.0). Therefore, a less-than-significant impact to fire protection and emergency medical services would occur from the implementation of the Specific Plan.

> IMPACT 4.13-2: GENERAL PLAN CONSISTENCY - RESPONSE TIMES. THE SPECIFIC PLAN AREA IS LOCATED WITHIN THE 8-MINUTE FIRE AND 10-MINUTE MEDICAL EMERGENCY RESPONSE STANDARDS FOR COMMUNITY REGIONS. THE PROPOSED DEVELOPMENT WOULD BE CONSISTENT WITH GENERAL PLAN POLICY 5.1.2.2. THEREFORE, LESS-THAN-SIGNIFICANT IMPACTS RELATED TO CONSISTENCY WITH COUNTY STANDARD FIRE AND MEDICAL EMERGENCY RESPONSE TIMES WOULD OCCUR.

The Specific Plan area is currently located within the El Dorado Hills Fire Department's response time goal of 5 minutes for fire and medical emergencies. Therefore, the Specific Plan would be consistent with the County's fire and medical emergency response standards (General Plan Policy 5.1.2.2). Less-than-significant impacts related to consistency with County response time standards would occur.

> IMPACT 4.13-3: GENERAL PLAN CONSISTENCY - DESIGN PLANS. DUE TO THE COUNTY'S CURRENT DEVELOPMENT REVIEW PROCESS, THE PROJECT APPLICANT WOULD BE REQUIRED TO SUBMIT DEVELOPMENT DESIGN PLANS FOR EL DORADO HILL FIRE DEPARTMENT APPROVAL TO ENSURE ADEQUATE FIRE AND EMERGENCY MEDICAL ACCESS, FIRE HYDRANTS, AND WATER SYSTEM DESIGNS. THEREFORE THE SPECIFIC PLAN WOULD BE CONSISTENT WITH GENERAL PLAN POLICIES 5.7.1.1, 5.7.4.1, 5.7.4.2, 6.2.3.1, AND 6.2.3.2. THE SPECIFIC PLAN WOULD

RESULT IN LESS-THAN SIGNIFICANT IMPACTS RELATED TO CONSISTENCY WITH THE COUNTY'S FIRE AND EMERGENCY MEDICAL DESIGN PLAN POLICIES.

Development of the proposed Specific Plan would be required to include fire and emergency medical access, fire hydrants, and water systems to provide adequate support facilities for the El Dorado Hills Fire Department. Due to the County's current development review process, the project applicant, prior to issuance of building permits, would be required to submit development design plans for El Dorado Hill Fire Department approval to ensure adequate fire and emergency medical access, fire hydrants, and water system designs. Therefore the Specific Plan would be consistent with General Plan Policies 5.7.1.1, 5.7.4.1, 5.7.4.2, 6.2.3.1, and 6.2.3.2. The Specific Plan would result in less-than significant impacts related to consistency with the County's fire and emergency medical design plan policies.

4.13.3 MITIGATION MEASURES

No mitigation measures are required.

4.13.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less-than-significant impacts on fire and medical emergency services would occur with implementation of the Specific Plan.

4.14 LAW ENFORCEMENT

4.14.1 ENVIRONMENTAL SETTING

EL DORADO COUNTY SHERIFF-CORONER'S DEPARTMENT

Law enforcement services are provided to the project site by the El Dorado County Sheriff-Coroner's Department (Sheriff's Department). The Sheriff's headquarters are located in the City of Placerville at 300 Fair Lane, approximately 18 miles east of the Planning Area. Other Sheriff's Department facilities include a station in South Lake Tahoe and a substation in Georgetown (Roth 1994). An El Dorado Hills satellite station began operating in May 1995 (Hackett, pers. comm., 1996).

The Specific Plan area lies within service Zone 2, an approximately 400-square-mile area bounded by the Cosumnes River to the south, Folsom Lake and the South Fork American River to the north, Greenstone Road to the east, and the Sacramento County line to the west (Roth, pers. comm., 1994). Zone 2 is currently served by the El Dorado Hills satellite station, which is located at the northwest corner of the Governor Drive/El Dorado Hills Boulevard intersection, approximately four miles north of the project site. The satellite station is open Monday through Saturday from 8 a.m. to 5 p.m. The station is manned by one to two volunteer retirees per shift. Ten sheriff's deputies are assigned to Zone 2 patrol duty seven days per week, 24 hours per day, with two deputies patrolling during a given work shift. Sheriff's deputies are generally on patrol during their shifts and use the satellite station only to prepare reports or other paperwork (Hackett, pers. comm., 1996).

The Sheriff's Department is currently staffed with 282 employees of which 139 are sworn officers. The current El Dorado County population, served by the Department, is approximately 144,000 which results in a current ratio of sworn officers to County residents of 1 sworn officer per 1,035 residents. The current ratio is slightly lower than the Department's goal of 1 sworn officer to 1,000 residents. The availability of patrols in the County depends on the time of day and concurrent service calls within the Sheriff's Department service area. The Sheriff's Department currently engages in mutual assistance programs with the California Highway Patrol and the law enforcement forces of all adjacent jurisdictions (Roth 1994).

The current fully burdened cost per officer including salary, benefits, administrative support, and vehicle cost is approximately $68,165 annually. The current annual department budget is $19.3 million (Roth 1994). The Sheriff's Department is currently seeking an additional $1.8 million over the next three years to facilitate hiring 18 new officers, a number the Sheriff's Department believes is necessary to maintain

the Department's officers to population ratio goal in response to the County's projected growth over the next three years (Roth, pers. comm., 1994).

Average Sheriff's Department response time to Priority 1 calls (highest priority) to Zone 2 is approximately 9 minutes. The average response time to all calls to Zone 2 is approximately 26.3 minutes. The Sheriff's Department's average response time for the entire County is approximately 27.5 minutes. Currently, the project area experiences minimal crime because it is undeveloped (Roth, pers. comm., 1994). The establishment of the El Dorado Hills satellite station has not resulted in a substantial reduction in response times to Zone 2. However, the satellite station allows for deputies to spend a greater percentage of their time on patrol (Hackett, pers. comm., 1996).

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

The Public Services and Utilities Element of the El Dorado County General Plan, adopted January 23, 1996, provides the following relevant policies for law enforcement services.

> **Policy 5.7.3.1:** Prior to approval of new development, the Sheriff's Department shall be requested to review all applications to determine the ability of the department to provide protection services. The ability to provide protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.

Policy 5.1.2.2 of the Public Services and Utilities Element directs that the provision of public services to new discretionary development "shall not result in a reduction of service below minimum established standards to current users." The minimum Sheriff's Department service standard is an 8-minute response to 80% of the population in Community Regions. No minimum standard is provided for Rural Centers and Rural Regions.

4.14.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

A significant impact would occur with full implementation of the Specific Plan if it would result in the following:

- Creates a substantial demand for law enforcement services without increasing staffing and equipment to maintain the Department's goal of 1 sworn officer per 1,000 residents; or
- An inconsistency between the Specific Plan and the El Dorado County General Plan, specifically related to the minimum 8-minute response times.

IMPACTS

IMPACT 4.14-1: LAW ENFORCEMENT SERVICES. THE SHERIFF'S DEPARTMENT'S EXISTING PERSONNEL AND EQUIPMENT WOULD NOT BE ABLE TO PROVIDE ADEQUATE LEVEL OF SERVICE TO THE PROPOSED PROJECT. ADDITIONAL PERSONNEL AND EQUIPMENT ARE FUNDED THROUGH TAX REVENUES ALLOCATED BY THE COUNTY BOARD OF SUPERVISORS. DUE TO THE PROJECT'S NET FISCAL DEFICIT ON THE COUNTY, THE PROPOSED SPECIFIC PLAN MAY NOT BE ABLE TO PROVIDE ADEQUATE FUNDING TO MEET THE DEPARTMENT'S SERVICE GOAL OF 1 SWORN OFFICER PER 1,000 RESIDENTS. THIS WOULD BE CONSIDERED A POTENTIALLY SIGNIFICANT IMPACT ON LAW ENFORCEMENT SERVICES.

General Impact Discussion

Demand for law enforcement services in El Dorado County would increase with buildout of the Specific Plan. Development consistent with the Specific Plan would generate up to approximately 7,565 new residents, resulting in an increased demand on Sheriff's Department services. Although the Sheriff's Department anticipates hiring 18 officers over the next three years, those officers are required to accommodate County-wide population growth over the three-year period. To maintain the Department's sworn officer to population ratio (one sworn officer per 1,000 residents), buildout of the proposed Specific Plan would require up to approximately 8 officers in addition to the 18 planned to be hired. The addition of patrol officers would reduce existing response times by limiting the geographic area each officer must patrol.

Specific Plan Provisions

The proposed Specific Plan states that law enforcement services to the project site would be provided by the El Dorado County Sheriff's Department from its Placerville headquarters and the El Dorado Hills substation. The Specific Plan does not expressly include provisions to add patrol officers to serve the land uses proposed onsite.

The Sheriff's Department has a funding mechanism to provide additional personnel and equipment. The mechanism is allocation of tax revenues by the El Dorado County Board of Supervisors. Since the proposed project would result in a net fiscal deficit on the County (Chapter 5.0), funding to provide sufficient additional personnel and equipment may not be available. Therefore, the proposed Specific Plan would result in a potentially significant impact to law enforcement services.

IMPACT 4.14-2: GENERAL PLAN CONSISTENCY - RESPONSE TIMES. EXISTING LAW ENFORCEMENT SERVICES COULD BE UNABLE TO REGULARLY RESPOND TO EMERGENCIES IN THE SPECIFIC PLAN SITE WITHIN THE 8-MINUTE STANDARD FOR COMMUNITY REGIONS. THE RESPONSE TIME TO THE PROJECT SITE FROM EXISTING LAW

REGIONS. THE RESPONSE TIME TO THE PROJECT SITE FROM EXISTING LAW ENFORCEMENT COULD, THEREFORE, BE INCONSISTENT WITH GENERAL PLAN POLICY 5.1.2.2. THIS WOULD BE CONSIDERED A POTENTIALLY SIGNIFICANT IMPACT.

General Plan Policy 5.1.2.2 sets the minimum Sheriff's Department response time to Community Regions as 8 minutes to 80% of the population. The Sheriff's Department's current average Priority 1 response time to Zone 2 is greater than the 8-minute standard in Policy 5.1.2.2. Subsequent to Specific Plan implementation, response times to the Specific Plan area may not improve. This would be considered a potentially significant impact.

4.14.3 MITIGATION MEASURES

Mitigation measures are provided below to reduce significant or potentially significant law enforcement impacts of the proposed project to the extent feasible. As discussed in Section 4.1 (Introduction to Environmental Analysis), mitigation measures are numbered corresponding to the number of the impact to be mitigated.

MITIGATION MEASURE 4.14-1: LAW ENFORCEMENT SERVICES.

The project applicant shall ensure adequate law enforcement personnel and equipment to serve the Specific Plan area through one of the following mechanisms:

a) Prior to the issuance of each building permit, the project applicant will be required to obtain a service letter from the El Dorado County Sheriff's Department identifying that law enforcement staff and equipment are available to serve the proposed land use upon occupancy and the Department has reasonably estimated that annual funding is available to provide adequate staff and equipment in the future.

b) Prior to the issuance of a building permit, the project applicant shall create an assessment district to provide funding to the El Dorado County Sheriff's Department for adequate law enforcement staff and equipment upon occupancy and in the future.

MITIGATION MEASURE 4.14-2: GENERAL PLAN CONSISTENCY - RESPONSE TIMES.

Apply Mitigation Measure 4.14-1, and no further mitigation is required.

4.14.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Following implementation of the above mitigation measures, project impacts on law enforcement services would be reduced to a less-than-significant level.

4.15 SOLID WASTE DISPOSAL

4.15.1 EXISTING CONDITIONS

SOLID WASTE COLLECTION

Solid waste collection services in the El Dorado Hills area are provided by El Dorado Disposal Service, Inc. (El Dorado Disposal), under a franchise agreement with the El Dorado Hills Community Services District (EDHCSD). Garbage collection is mandatory in the EDHCSD area (Gambles, pers. comm., 1994).

El Dorado Disposal provides solid waste collection services for western El Dorado County from the Sacramento County border to Pollock Pines. El Dorado Disposal offers curbside pick-up and transport of solid waste by compactor trucks to the Union Mine Disposal Site, located at 5700 Union Mine Road in El Dorado (DeWolf 1994).

UNION MINE DISPOSAL SITE

Union Mine Disposal Site is a Class II landfill owned by El Dorado County and operated under contract by El Dorado Landfill, Inc. (El Dorado County 1996a). It is the only active landfill in its service area, which consists of approximately 955,000 acres of western El Dorado County. The landfill serves an estimated population of 111,900 people and receives approximately 72,300 tons of solid waste per year. As of February 1995, the landfill has an estimated current capacity of 5,162,000 cubic yards and a remaining life of 37 years, with an estimated closure date of 2032 (Sanders 1995).

SOURCE REDUCTION PROGRAMS

Assembly Bill 939 requires local agencies to implement source reduction, recycling, and composting activities at landfills. Specifically, the bill requires recycling plans to be prepared and adopted that achieve a 25% reduction in solid wastes by January 1, 1995, and 50% reduction by January 1, 2000. In accordance with AB 939, El Dorado County has prepared a Source Reduction and Recycling Element as part of its Integrated Waste Management Plan (El Dorado County 1996a). Achieving the reduction and recycling goals set out in AB 939 would increase the life of the Union Mine Disposal Site.

El Dorado Disposal currently offers a source reduction program consisting of "buy back centers" for aluminum, metal, glass, and plaster containers located in numerous locations within the service area, a curbside collection program, and newspaper and cardboard drop-off centers. A recycling service for all

white goods and tires is offered at the Union Mine Disposal Site. The recycling programs have been successful in reducing the amount of waste sent to the landfill by 10%. To meet the requirements of AB 939, El Dorado Disposal is planning a new materials recovery facility (MRF) in the Diamond Springs area to increase the percentage of solid waste diverted from landfills through source reduction, recycling, and composting. The MRF is expected to become operational in summer 1995 (Sanders 1995).

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

The Public Services and Utilities Element of the El Dorado County General Plan (General Plan), as adopted January 1996, provides the following objectives and policies relative to solid waste management:

> **Objective 5.5.1: Integrated Waste Management Program** - Comply with El Dorado County Integrated Waste Management program which complies with the intent and requirements of the California Public Resources Code, Division 30, Waste Management.
>
> **Objective 5.5.2: Recycling, Transformation and Disposal Facilities** - Ensure that there is adequate capacity for solid waste processing, recycling, transformation, and disposal to serve existing and future users in the County.
>
> **Policy 5.5.2.1:** Concurrent with the approval of new development, evidence will be required that capacity exists within the solid waste system for the processing, recycling, transformation, and disposal of solid waste.
>
> **Policy 5.5.2.2:** Facility sites shall be protected from the encroachment of sensitive and/or incompatible land uses.

4.15.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

A significant impact would occur with full implementation of the Specific Plan if it would result in one or more of the following:

- Development that cannot be provided solid waste disposal service;
- Solid waste generation in excess of available landfill capacities; or
- Inconsistency with the El Dorado County General Plan policies.

IMPACTS

IMPACT 4.15-1: SOLID WASTE GENERATION. BUILDOUT OF THE SPECIFIC PLAN WOULD RESULT IN AN INCREASE IN THE AMOUNT OF SOLID WASTE ACCEPTED AT THE UNION MINE DISPOSAL SITE. THE AMOUNT OF SOLID WASTE GENERATED BY BUILDOUT WOULD NOT EXCEED LANDFILL CAPACITY. THIS WOULD BE CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

Solid waste disposal service to the Specific Plan Area would be provided by El Dorado Disposal. As discussed in Population, Employment, and Housing (Section 4.4), buildout of the Specific Plan would generate up to an estimated 7,565 new residents to the Union Mine Disposal Site service area. Based on average waste generation factor of 3.7 pounds per person per day, as provided by the El Dorado County Solid Waste and Hazardous Materials Division, buildout of the Specific Plan would generate up to approximately 14 tons of solid waste per day. The application of existing El Dorado Disposal source reduction programs to the project site could reduce the amount of waste sent to the landfill. The Union Mine Disposal Site has an expected life of 37 years, which accounts for regional growth and the proposed Specific Plan, and would, therefore, be able to accommodate solid waste generated on the project site. Because solid waste disposal service could be provided to the project site and because waste generated by buildout of the Specific Plan would not exceed current landfill capacity, solid waste impacts would be less-than-significant.

IMPACT 4.15-2: CONSISTENCY WITH RELEVANT GENERAL PLAN PROVISIONS. THE PROPOSED SPECIFIC PLAN WOULD BE REQUIRED TO BE CONSISTENT WITH RELEVANT EL DORADO COUNTY GENERAL PLAN OBJECTIVES AND POLICIES RELATED TO SOLID WASTE. NO INCONSISTENCIES WITH RELEVANT GENERAL PLAN SOLID WASTE PROVISIONS ARE ANTICIPATED. THIS WOULD BE CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

The proposed Specific Plan would be required to comply with relevant El Dorado County General Plan objectives and policies related to solid waste. The Specific Plan would be consistent with Objective 5.5.1, Objective 5.5.2, and Policy 5.5.2.1, because El Dorado Disposal would extend its existing source reduction programs to the project site. The Specific Plan would also be consistent with Policy 5.5.2.2, because the project site is located over 10 miles from the Union Mine Disposal Site and would not, therefore, encroach on the landfill site.

4.15.3 MITIGATION MEASURES

No mitigation measures are required.

4.15.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Solid waste disposal services would not be significantly affected by the proposed Specific Plan.

4.16 PARKS, RECREATION, AND COMMUNITY SERVICES

4.16.1 ENVIRONMENTAL SETTING

REGIONAL CONTEXT

Park and recreation facilities in El Dorado County area are provided by Federal, State, and County agencies, as well as by local Community Services Districts (CSDs). El Dorado County offers sightseeing, hiking, biking, water sports, and camping as outdoor recreational activities. The El Dorado National Forest, managed by the U.S. Forest Service, offers a variety of recreational activities including camping, hiking, hunting, fishing, snowmobiling, off-road vehicle areas, and cross-country skiing. The California Department of Parks and Recreation manages the Folsom Lake State Recreation Area, Marshall Gold Discovery State Historic Park, Emerald Bay State Park, Bliss State Park, the Auburn State Recreation Area, Lake Valley State Recreation Area, Washoe Meadows State Park, and Sugar Pine Point State Park (El Dorado County 1996a).

El Dorado County owns and operates a variety of regional recreation areas. Notable County recreation facilities include the El Dorado County Fairgrounds, Finnon Lake, Henningsen/Lotus Park, Bass Lake, Golden Bear Park, Shingle Springs Park, and Pioneer Park. The County is also involved in several joint developments in conjunction with local school districts (El Dorado County 1996a).

LOCAL PARK SERVICES

The El Dorado Hills Community Services District (EDHCSD) serves the El Dorado Hills Specific Plan Area, a 22 square-mile land area located north of the project site. The EDHCSD currently provides 16 recreation sites and various recreation programs within its service area. Notable EDHCSD facilities include the 40-acre El Dorado Hills Community Park, the 10.76-acre Bertelesen Park, and the 6-acre Tennis Court Park. In addition, the El Dorado Hills Golf Course, a privately-owned facility, is open to the public (EDHCSD 1992; El Dorado County 1996a).

The Quimby Act sets out standards for the acquisition of parklands or payment of fees in lieu of dedication ("in lieu" fees) on any discretionary project which proposes to subdivide land. EDHCSD requires developments to dedicate 5 acres of active park and recreation land per 1,000 population, the maximum dedication allowed under the Quimby Act. Currently, EDHCSD has a total of 95 acres developed and 18.55 acres of undeveloped park and recreation facilities. EDHCSD's current ratio of active parklands to population is approximately 9.5 acres per 1,000 (El Dorado County 1994).

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

Parks and Recreation Policies

The Parks and Recreation Element of the El Dorado General Plan (General Plan), as adopted January 23, 1996, provides the following pertinent policy relating to park land.

Policy 9.1.1.1: The County shall assist in the development of regional, community, and neighborhood parks, ensure a diverse range of recreational opportunities at a regional, community, and neighborhood level, and provide park design guidelines and development standards for park development. The following national standards [Table 4.16-1] shall be used as guidelines for the acquisition and development of park facilities.

TABLE 4.16-1
GUIDELINES FOR THE ACQUISITION AND DEVELOPMENT OF PARK FACILITIES

Park Types	Developed
Regional Parks	1.5 acres/1,000 population
Community Parks	1.5 acres/1,000 population
Neighborhood Parks	2.0 acres/1,000 population
Specific Standards (Neighborhood and Community Parks)	
Cameron Park Community Services District	5.0 acres/1,000 population
El Dorado Hills Community Services District	5.0 acres/1,000 population
Planned Communities	5.0 acres/1,000 population

Source: El Dorado County 1996

The parkland dedication/in-lieu fees shall be directed towards the purchase and funding of neighborhood and commercial parks.

Policy 9.1.1.2: Neighborhood parks shall be primarily focused on serving children's walk-to or bike-to recreation needs. When possible, neighborhood parks should be adjacent to schools. Neighborhood parks are generally 2 to 10 acres in size and may include a playground, tot lot, turf areas, and picnic tables.

Policy 9.1.1.3: Community parks and recreation facilities shall provide a focal point and gathering place for the larger community. Community parks are generally 10 to 44 acres in size, are for use by all sectors and age groups, and may include multi-purpose fields, ball fields, group picnic areas, playground, tot lot, multi-purpose hardcourts, swimming pool, tennis courts, and a community center.

Policy 9.1.1.4: Regional parks and recreation facilities shall incorporate natural resources such as lakes and creeks and serve a region involving more than one community. Regional parks generally range in size from 30 to 10,000 acres with the preferred size being several hundred acres. Facilities may include multi-purpose hardcourts, shooting sports facilities, concessionaire facilities, trails, nature interpretive centers, campgrounds, natural or historic points of interest, and community multi-purpose centers.

Policy 9.1.1.5: Parkland dedicated under the Quimby Act must be suitable for active recreation uses and:

A. Shall have a maximum average slope of 10 percent;
B. Shall have sufficient access for a community or neighborhood park; and
C. Shall not contain significant constraints that would render site unsuitable for development.

Policy 9.1.1.11: Focus park acquisition on recreation oriented facilities as opposed to open space.

Policy 9.1.3.1: Linear parks and trails may be incorporated along rivers, creeks, and streams, wherever possible.

Open Space Policies

The Conservation and Open Space Element of the General Plan provides the following pertinent policies relative to open space lands.

Policy 7.6.1.1: The General Plan land use map shall include an Open Space land use designation. The purpose of this designation is to implement the goals and objectives of the Land Use and the Conservation and Open Space Elements by serving one or more of the purposes stated below. In addition, the designations on the land use map for Rural Residential and Natural Resource areas are also intended to implement said goals and objectives. Primary purposes of open space include:

A. Conserving natural resource areas required for the conservation of plant and animal life including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, banks of rivers and streams and watershed lands;

B. Conserving natural resource lands for the managed production of resources including forest products, rangeland, agricultural lands important to the production of food and fiber; and areas containing important mineral deposits;

C. Maintaining areas of importance for outdoor recreation including areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes including those providing access to lake shores, beaches and rivers and streams; and areas which serve as links between major recreation and open space reservations including utility easements, banks of rivers and streams, trails and scenic highway corridors;

D. Delineating open space for public health and safety including, but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for protection of water quality and water reservoirs, and areas required for the protection and enhancement of air quality; and

E. Providing for open space to create buffers which may be landscaped to minimize the adverse impact of one land use on another.

Policy 7.6.1.2: The County will provide for Open Space through:

A. The designation of land as Open Space;

B. The designation of land for low-intensity land uses as provided in the Rural Residential and Natural Resource land use designations;

C. Local implementation of the Federal Emergency Management Agency's National Flood Insurance Program;

D. Local implementation of the State Land Conservation Act Program; and

E. Open space land set aside through Planned Developments (PDs).

El Dorado County Hiking and Equestrian Trails Master Plan

The County is also responsible for trail designation and construction within the County. The County's trail plan is established through the Hiking and Equestrian Trails Master Plan for El Dorado County 1989, revised in April 1990, and the Bikeway Master Plan (discussed on following page) adopted in 1979. The Hiking and Equestrian Trails Master Plan recognizes 11 Federal trails, one state trail, and one regional trail, and designates 14 County trail corridors (El Dorado County 1990). The County is currently seeking to acquire rights-of-way along designated trail corridors to ensure public access (El Dorado County 1994).

The Hiking and Equestrian Trails Master Plan indicates that one trail, the Mormon-Carson National Historic Trail (Mormon-Carson Trail), is proposed in the vicinity of the project site. The proposed alignment of the Mormon-Carson Trail would be parallel to and immediately north of White Rock Road, to the north of the project site (El Dorado County 1990; 1996a).

El Dorado County Bikeway Master Plan

The El Dorado County Bikeway Master Plan, adopted in 1979, was established to develop a system of bicycle trails, lanes, and routes in El Dorado County. Currently, several communities have made progress in planning and constructing bikeways in the County (El Dorado County 1994).

4.16.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

A significant impact would occur with full implementation of the Specific Plan if it would result in one or more of the following:

- Dedication of less than 5 acres of developed parklands for every 1,000 population generated; or
- An inconsistency between the Specific Plan and the El Dorado County General Plan.

IMPACTS

IMPACT 4.16-1: ACTIVE PARKS AND RECREATIONAL FACILITIES. DEVELOPMENT OF THE PROPOSED SPECIFIC PLAN WOULD RESULT IN THE DEMAND FOR 38 ACRES OF ACTIVE PARKLAND BASED ON EL DORADO HILL COMMUNITY SERVICE DISTRICT'S (EDHCSD) REQUIREMENT OF 5 ACRES OF DEVELOPED OR ACTIVE PARKLAND FOR EVERY 1,000 POPULATION. THE SPECIFIC PLAN DESIGNATES 31.2 ACRES FOR ACTIVE PARKLAND WHICH WOULD RESULT IN UP TO 7 FEWER ACRES OF ACTIVE PARKLAND THAN REQUIRED BY EDHCSD, DEPENDING ON THE DENSITIES PROPOSED IN EACH PHASE OF DEVELOPMENT. THEREFORE, IMPACTS TO PARKLAND AND RECREATIONAL FACILITIES WOULD BE CONSIDERED SIGNIFICANT.

General Impact Discussion

Buildout of the Specific Plan would result in the need for additional parkland in the El Dorado Hills Community Services District. Based on EDHCSD's requirement of 5 acres of developed or active parkland for every 1,000 population, development consistent with the Specific Plan would result in a demand for up to 38 acres of active parkland. Actual park land dedication and/or in-lieu fee requirements would be based on the final densities proposed in each phase of development.

Proposed Specific Plan Provisions

The Specific Plan designates three parks consisting of 31.2 acres on the project site. The proposed parks include one 19.2-acre regional park, one 8-acre community park, and one 4-acre local park.

A 4-acre local park is proposed for the project site, located near residential uses and the potential elementary school site to allow joint use of facilities. The local park could provide picnic areas, playgrounds, and sports fields.

An 8-acre community park is proposed for the project site, centrally located in the southern portion of the site, adjacent to the proposed collector loop road. The community park would provide limited active recreation facilities for the entire project site.

A 19.1-acre regional park is proposed for the project site, located at the southern end of the site, adjacent to the proposed local commercial land. The park would accommodate regional active recreational needs by providing ball fields, basketball courts, and other facilities. Parking and picnic areas would also be provided. Lighted active recreational facilities are permitted in the development standards.

Implementation of the Specific Plan would result in the designation of 31.2 acres of active park and recreation facilities. Because implementation of the Specific Plan could result in the designation of up to 7 fewer acres of active parkland than required by EDHCSD, impacts on park and recreational facilities would be significant.

> IMPACT 4.16-2: OPEN SPACE. THE PROPOSED SPECIFIC PLAN INCLUDES 142.8 ACRES OF ENHANCED OPEN SPACE. SINCE EDHCSD HAS NO OPEN SPACE DESIGNATION REQUIREMENT, THIS WOULD BE CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

General Impact Discussion

Development consistent with the Specific Plan would generate up to approximately 7,565 additional residents. The population increase would result in the demand for more open space and resource-related recreational space.

Proposed Specific Plan Provisions

Implementation of the Specific Plan would provide for 142.8 acres of enhanced open space in conjunction with the natural drainage system of the site. Open Space areas within the Specific Plan have been established for preservation of natural resources, wetlands and flood plain areas, for passive recreation,

and for the enjoyment of community and County residents. Agricultural and timber harvesting activities are not allowed on Open Space designated lands.

The Specific Plan also provides for a thirty-foot wide, landscaped greenbelt buffer along the western and northern perimeter and a portion of the eastern perimeter of the project site. This greenbelt would be maintained by a Landscape and Lighting District.

In addition to the proposed thirty-foot wide, landscaped greenbelt, the project would result in the designation of approximately 142.8 acres of open space. Because the EDHCSD has no set open space designation requirement, this would be considered a less-than-significant impact.

IMPACT 4.16-3: TRAILS AND BIKEWAYS. THE PROPOSED SPECIFIC PLAN WOULD RESULT IN A DEMAND FOR TRAILS AND BIKEWAYS. SINCE THE SPECIFIC PLAN INCLUDES PEDESTRIAN AND BICYCLE PATHWAYS, IMPACTS WOULD BE CONSIDERED LESS-THAN-SIGNIFICANT.

General Impact Discussion

Development consistent with the Specific Plan would result in increased population in El Dorado County. The additional population generated by Specific Plan buildout would result in increased demand for trails and bikeways facilities.

Proposed Specific Plan Provisions

Implementation of the Specific Plan would establish a linear parkway along Carson Creek and its tributaries. The parkway corridor would include a pedestrian/bicycle trail connecting residential, park, and school areas. The trails system would connect to points adjacent to the Specific Plan area and may eventually be interconnected to future trails systems. The parkways would be required to be consistent with the El Dorado County Hiking and Equestrian Trails Master Plan. Bikeways would be required to be consistent with the County Bikeway Master Plan.

Because the Specific Plan would establish pedestrian and bicycle pathways, there would be a less-than-significant impact on trails and bikeways.

IMPACT 4.16-4: GENERAL PLAN CONSISTENCY - ACTIVE PARKS AND RECREATIONAL FACILITIES. GENERAL PLAN POLICY 9.1.1.1 REQUIRES THE DEDICATION OR PAYMENT OF IN-LIEU FEES TOWARD THE ACQUISITION OF 5 ACRES OF ACTIVE PARKLAND PER 1,000 POPULATION. BASED ON THIS POLICY, THE PROPOSED SPECIFIC PLAN WOULD REQUIRE THE DEDICATION OF, OR IN-LIEU FEE PAYMENT EQUIVALENT TO, UP TO 38 ACRES OF ACTIVE PARKLAND. SINCE THE SPECIFIC PLAN DESIGNATES 31.2 ACRES, UP TO 7 LESS THAN REQUIRED UNDER THIS POLICY,

IT WOULD BE INCONSISTENT WITH THIS POLICY. THIS WOULD BE CONSIDERED A SIGNIFICANT IMPACT.

General Plan Policy 9.1.1.1 requires dedication of, or payment of in-lieu fees toward the acquisition of, 5 acres of developed parkland for every 1,000 population to be directed towards the establishment of neighborhood and community parks. Based on these standards, development consistent with the Specific Plan would require up to 38 acres of developed parklands, depending on the densities of land uses actually proposed during each phase of development. Implementation of the Specific Plan would designate 31.2 acres of developed park and recreation facilities, or approximately 7 acres less than required by the General Plan. Actual parkland dedication requirements would vary depending on the final densities proposed in each phase of development. Because buildout of the proposed project would create less park land than required by the General Plan, the project's impacts on park and recreational facilities would be significant.

Policy 9.1.1.2, 9.1.1.3, and 9.1.1.4 provide general guidelines for neighborhood, community, and regional parks. Because Policy 9.1.1.1 requires that park dedication or in-lieu fees be applied toward the establishment of neighborhood and community parks, only Policies 9.1.1.2 and 9.1.1.3 would be applicable to the proposed Specific Plan. The proposed park facilities would generally comport with the neighborhood and community park guidelines in Policies 9.1.1.2 and 9.1.1.3 with regard to facility size and type of services offered.

Policy 9.1.1.5 provides that parkland dedicated under the Quimby Act must be suitable for active recreation uses, have a maximum average slope of 10 percent, have sufficient access for a community or neighborhood park, and must not contain significant constraints that would render the site unsuitable for development. Policy 9.1.1.11 provides that park acquisition be focused on recreation oriented facilities as opposed to open space. Because the proposed parkland provided in the Specific Plan would be suitable for active recreation, would not have an average slope in excess of 10 percent, would have sufficient access for community or neighborhood park uses, and would not contain significant constraints to development, and would be developed for active recreational uses, the proposed project would be consistent with Policies 9.1.1.5 and 9.1.1.11.

IMPACT 4.16-5: GENERAL PLAN CONSISTENCY - OPEN SPACE. GENERAL PLAN POLICIES 7.6.1.1 AND 7.6.1.2 IDENTIFY THE DESIGNATION OF OPEN SPACE AREAS FOR A VARIETY OF PURPOSES SUCH AS CONSERVING NATURAL RESOURCES, PASSIVE RECREATION, AND SPECIAL MANAGEMENT AREAS. THE PROPOSED SPECIFIC PLAN INCLUDES OPEN SPACE AREAS FOR SIMILAR PURPOSES THAT ARE IDENTIFIED IN THESE TWO POLICIES. IMPACTS RELATED TO OPEN SPACE POLICIES ARE CONSIDERED LESS-THAN-SIGNIFICANT.

The proposed Specific Plan includes open space areas that have been established for preservation of natural resources, wetlands and flood plain areas, passive recreation, and enjoyment of community and County residents. These proposed purposes of open space within the Specific Plan are similar to those identified in General Plan policies 7.6.1.1 and 7.6.1.2. Impacts related to open space policies are considered less-than-significant.

IMPACT 4.16-6: GENERAL PLAN CONSISTENCY - TRAILS AND BIKEWAYS. THE SPECIFIC PLAN INCLUDES TRAILS AND BIKEWAYS THROUGHOUT THE PROJECT SITE. TRAILS ARE PROPOSED ALONG LINEAR OPEN SPACE AREAS THAT ENCOMPASS DRAINAGE AREAS AND ALONG ROADWAYS. BIKEWAYS ARE PROPOSED ALONG ROADWAYS. THE PROPOSED TRAILS ALONG THE LINEAR OPEN SPACE WOULD BE CONSISTENT WITH GENERAL PLAN POLICY 9.1.3.1. TRAILS AND BIKEWAYS ALONG ROADWAYS COULD BE INCORPORATED INTO THE COUNTY'S MASTER PLANS FOR TRAILS AND BIKEWAYS. LESS-THAN SIGNIFICANT IMPACTS ON TRAIL OR BIKEWAY POLICIES WOULD OCCUR FROM SPECIFIC PLAN DEVELOPMENT.

General Plan policy 9.1.3.1 identifies the incorporation of trails and linear parks. The Specific Plan would be consistent with this policy because it includes trails along the linear open space throughout the Specific Plan area. The Specific Plan also includes trails as well as bikeways along roadways throughout the Specific Plan area. These trails and bikeways could be included within the County's Hiking and Equestrian Trails Master Plan and Bikeway Master Plan. The proposed Specific Plan would result in less-than-significant impacts to trails and bikeways.

4.16.3 MITIGATION MEASURES

Mitigation measures are provided below to reduce significant or potentially significant parks, recreation, and community services impacts of the proposed project to the extent feasible. As discussed in Section 4.1 (Introduction to Environmental Analysis), mitigation measures are numbered corresponding to the number of the impact to be mitigated.

MITIGATION MEASURE 4.16-1: ACTIVE PARKS AND RECREATIONAL FACILITIES

The project applicant shall pay in-lieu fees for the purchase and development of approximately 7 acres of active parks and recreation facilities in addition to the 31.2 acres the applicant shall dedicate for such purposes. Actual land dedication and in-lieu fees will vary based on the final densities proposed in each phase of development.

MITIGATION MEASURE 4.16-4: GENERAL PLAN CONSISTENCY - ACTIVE PARKS AND RECREATIONAL FACILITIES

Apply mitigation measure 4.16-1 and no further mitigation is required.

4.16.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Following implementation of the above mitigation measure, impacts to parks and recreation services would be reduced to a less-than-significant level.

4.17 LIBRARY SERVICE

4.17.1 EXISTING CONDITIONS

REGIONAL CONTEXT

The El Dorado County Library (County Library) provides library services to El Dorado County, including the project vicinity. The County Library participates in State and Federal network programs through the California State Library network and through regional systems and networks such as the Mountain-Valley Library System. The El Dorado County Library system consists of six branches: a main branch located in Placerville, and five smaller facilities located in South Lake Tahoe, Cameron Park, Pollock Pines, Georgetown, and El Dorado Hills (Oak Ridge High School branch).

LOCAL FACILITIES

Existing Facilities

The El Dorado County Library facilities located nearest the project site are the Oak Ridge High School branch and the Cameron Park branch, as described below.

Oak Ridge High School Branch (El Dorado Hills)

The El Dorado Hills area, including the project site, is currently served by a 5,800-square-foot branch library located at Oakridge High School on 1120 Harvard Way in El Dorado Hills, approximately 4 miles northeast of the project site. The branch library is operated as a joint-use facility between the El Dorado Union High School District and the County Library. The joint-use library houses both County library materials and high school library materials, including videos and audio-visual equipment not available at other County library branches. The El Dorado Hills branch houses a total of 6,000 County volumes and 15,000 volumes owned by the school district as well as 20 magazine titles (El Dorado County 1996a).

Cameron Park Branch

The Cameron Park Branch is located at 2500 Country Club Drive in Cameron Park, approximately 5 miles east of the project site. The 12,500-square-foot library opened in April 1994 and serves the Cameron Park area. Currently, the Cameron Park branch contains 24,000 volumes; the maximum capacity is 52,000 volumes. The Cameron Park branch is expected to somewhat alleviate the demands

on the Oak Ridge High School joint-use facility until the proposed El Dorado Hills branch is constructed (El Dorado County 1996a).

Planned Facilities

A new branch library is planned for the El Dorado Hills area. The proposed El Dorado Hills branch would be located on Silva Valley Road, across from the Silva Valley Elementary School. The proposed branch would be approximately 20,000 square feet. A library site has been donated by the El Dorado Hills Development Corporation. The proposed El Dorado Hills branch is anticipated to open in 1998. The service area of the planned branch would include the project site. Funding will probably be through a benefit assessment on improved parcels. Although the amount of the benefit assessments have not yet been determined, the County Library estimates that the annual assessment, which would be based on the benefit of library service to property values in the service area, would not exceed $25 per single-family dwelling. Once the El Dorado Hills branch opens, the Oak Ridge High School joint-use agreement will be terminated, and the Oak Ridge Branch would revert entirely to use by the High School (Crouch, pers. comm., 1994).

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

The El Dorado County General Plan (General Plan) provides the following policy relative to new library services:

> **Policy 5.9.1.2:** New libraries shall be funded through Community Services Districts, assessment districts, zones of benefits, or other sources.

4.17.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

A significant impact would occur with full implementation of the Specific Plan if it would result in one or more of the following:

- Demand for library service in excess of available resources; or
- An inconsistency between the Specific Plan and the El Dorado County General Plan.

IMPACTS

IMPACT 4.17-1: LIBRARY SERVICE. THE DEVELOPMENT OF THE PROPOSED SPECIFIC PLAN WOULD RESULT IN A DEMAND FOR LIBRARY SERVICE. A BRANCH LIBRARY IS CURRENTLY PROPOSED IN THE PROJECT VICINITY AND WOULD BE ABLE TO ACCOMMODATE THE POPULATION GENERATED FROM THE BUILDOUT OF THE SPECIFIC PLAN. FUNDING FOR THE BRANCH LIBRARY WOULD BE OBTAINED THROUGH AN ASSESSMENT DISTRICT AND DEVELOPMENT UNDER THE SPECIFIC PLAN WOULD BE REQUIRED TO PAY ALL APPLICABLE FEES. IMPACTS FROM SPECIFIC PLAN BUILDOUT WOULD BE CONSIDERED LESS-THAN-SIGNIFICANT ON LIBRARY SERVICES.

General Impact Discussion

The El Dorado County Library estimates that the El Dorado Hills (either the Oak Ridge High School or proposed branch on Silva Valley Road, depending on time of buildout) and Cameron Park branches would be most impacted by the resulting project. Buildout of the Specific Plan would result in up to approximately 7,565 new residents in the project area. The population increase would result in the need for additional library services in El Dorado County. The current Oak Ridge joint-use facility would not be able to accommodate population growth attributable to buildout of the Specific Plan. However, the County Library reports that the planned El Dorado Hills branch library would be able to accommodate project-related population growth as well as projected population growth within the El Dorado Hills service area (Crouch, per. comm., 1994).

Proposed Specific Plan Provisions

The proposed Specific Plan states that library services would be provided by the El Dorado County Library. The Specific Plan notes that although the Plan Area is currently served by the Oak Ridge High School Branch, a new branch library is planned for the El Dorado Hills area. The Specific Plan provides that the proposed El Dorado Hills branch would be funded by a Mello-Roos district.

It is anticipated that Specific Plan buildout would occur after completion of the new El Dorado Hills branch library. The El Dorado Hills branch, as planned, would accommodate project-related growth and other growth within the El Dorado Hills area. The Specific Plan area lies within the intended service area of the proposed library, and development under the Specific Plan would be required to pay all applicable assessments levied for library construction. Because the planned El Dorado Hills branch library would accommodate project-related growth and development under the Specific Plan would be required to pay all applicable assessments levied for library construction, project impacts on library services would be less than significant.

IMPACT 4.17-2: GENERAL PLAN CONSISTENCY. THE PROPOSED SPECIFIC PLAN WOULD BE CONSISTENT WITH THE GENERAL PLAN BECAUSE DEVELOPMENT UNDER THE SPECIFIC PLAN WOULD BE REQUIRED TO PAY ALL APPLICABLE LIBRARY ASSESSMENT FEES. IMPACTS ON LIBRARY SERVICE POLICIES WOULD BE LESS THAN SIGNIFICANT.

Development under the proposed Specific Plan would be required to pay all applicable fees and assessments for funding local library services. This would be consistent with the El Dorado General Plan policies relating to library services and therefore a less-than-significant impact.

4.17.3 MITIGATION MEASURES

No mitigation measures are required.

4.17.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the proposed project would result in less-than-significant impacts to library services.

4.18 WATER SERVICE

4.18.1 EXISTING CONDITIONS

WATER SUPPLY

The responsibility for water supply within El Dorado County is divided between the El Dorado County Water Agency (EDCWA) and five water purveyors. The EDCWA acts in a countywide capacity to ensure that an adequate water supply is available throughout the County and that this supply can be delivered to water users via the County's water purveyors. The five individual water purveyors hold jurisdiction and responsibility for their respective service areas (El Dorado County 1996a).

El Dorado Irrigation District (EID) is the primary purveyor and supplier of domestic, agricultural, and industrial water to approximately 60,000 people in western El Dorado County. EID currently serves a population of approximately 82,000 within a service area that extends along the U.S. Highway 50 corridor from El Dorado Hills to Kyburz. The northern (Euer Ranch) portion of the project site currently lies within the EID service area and Assessment District No. 3 (AD No. 3), the EID water district serving the El Dorado Hills area. Currently, EID is entitled to 51,192 acre-feet of water per year (ac-ft/yr) from four sources: Jenkinson (Sly Park) Reservoir (23,000 ac-ft/yr), PG&E's Forebay Reservoir (15,080 ac-ft/yr), Folsom Reservoir (7,550 ac-ft/yr), and Crawford Ditch (5,562 ac-ft/yr for non-domestic uses). To ensure accurate water planning, based on variable weather patterns, EID has an annual "firm yield" assumed that is less than the total annual water entitlement. EID's current annual firm yield is approximately 37,150 ac-ft/yr from the above sources. For 1994, estimated water demand within the EID service area was approximately 34,600 ac-ft, 2,550 ac-ft less than the present firm yield (Starns 1994).

Currently, EID has 3,737 equivalent dwelling units (EDU) of water supply available for development throughout its service area (Eden 1994). An EDU is the average annual single-family household water demand (approximately 0.6 ac-ft) in the EID service area (Witter, pers. comm., 1994). However, EID is presently precluding the sale of water meters in AD No. 3 until supplemental water sources are found (Eden 1994).

EID is currently pursuing additional water supply sources for AD No. 3. EID has applied to the State Water Resources Control Board (SWRCB) for a water right to 17,000 ac-ft of water from Folsom Lake annually. A decision on this application is pending. EID has also requested approval by the U.S. Bureau of Reclamation for additional water from either Folsom Lake or the South Fork of the American River (Archuletta 1994).

Plans for other future water sources and treatment facilities to accommodate the projected population growth in the EID service area include the White Rock Penstock project, which may be built by 2005; the Bray Water Treatment Plant, which may be built by 2005; the Texas Hill Reservoir, which may be built in approximately 20 years; and the Small Alder project, which is still a potential project (Starns 1994).

WATER INFRASTRUCTURE

Existing water supply infrastructure surrounding the project consists of: a 12-inch watermain in Suncast Lane and Sandstone Drive to the east of the project site; a 12-inch watermain in White Rock Road adjacent to the project site to the northwest; a 12-inch waterline in Investment Boulevard near the southeastern portion of the site; and an 8-inch waterline parallel to the southeast boundary of the site. The northern portion of the project site (Euer Ranch) is currently served by EID. The southern portion of the project site (Carson Creek) is not within the EID service area (Eden 1994).

WATER CONSERVATION PROGRAMS

EID has engaged in active water conservation programs since 1981 (Starns 1994). EID maintains an approved water conservation program called the "4-Stage Water Supply Matrix and Water Shortage Response Measures." This conservation program establishes four stages of water conservation measures to respond to differing severities of water shortage. Implementation of these programs are expected to reduce regional water consumption by up to 30% (EID 1994). For example, during 1987, a low-water year, EID's water conservation efforts resulted in an overall 30% reduction in water use as compared to the previous year (Starns 1994).

In 1995, EID began implementation of Best Management Practices (BMP) as required by the Central Valley Project Improvement Act. The implementation of these mandatory water conservation methods, which include an ultra-low-flush toilet replacement program and water audits, would decrease existing water use and extend EID's water supply for new water uses (Starns 1994).

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

The Public Services and Utilities Element of the El Dorado County General Plan (General Plan) provides the following pertinent objectives and policies relating to water supply:

> **Objective 5.2.1: County-Wide Water Resource Program** - Establish a County-wide water resources development and management program to include the activities necessary to ensure adequate future water supplies consistent with the General Plan.

Policy 5.2.1.1: The El Dorado County Water Agency shall support a County-wide water resources development and management program which is coordinated with water purveyors and is consistent with the demands generated by the General Plan land use map.

Policy 5.2.1.2: An adequate quantity and quality of water for all uses, including fire protection, shall be provided for with discretionary development.

Policy 5.2.1.3: All medium-density residential, high-density residential, multifamily residential, commercial, industrial and research and development projects shall be required to connect to public water systems when located within Community Regions and to either a public water system or to an approved private water system in Rural Centers.

Policy 5.2.1.4: Rezoning and subdivision approvals in Community Regions or other areas dependent on public water supply shall be subject to the availability of a permanent and reliable water supply.

Policy 5.2.1.8: The preparation and approval of specific plans may occur without the availability of water guarantees. The timing for water guarantees shall be established within the policies of each specific plan consistent with Policy 5.2.1.4.

Furthermore, Policy 5.1.2.2 provides that provision of public services to new discretionary development shall not result in a reduction of service to current users below minimum standards as determined by the water purveyor.

4.18.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

A significant impact would occur with full implementation of the Specific Plan if it would result in one or more of the following:

- Water demand that exceeds available supply.
- Water demand that exceeds available distribution capacity.
- Inconsistency with the El Dorado County General Plan.

IMPACTS

IMPACT 4.18-1: WATER CONSUMPTION. BUILDOUT OF THE PROPOSED SPECIFIC PLAN WOULD INCREASE WATER DEMAND ON THE PROJECT SITE. CURRENTLY, INSUFFICIENT WATER RIGHTS ARE AVAILABLE TO SERVE THE SPECIFIC PLAN. UNTIL ADDITIONAL WATER SUPPLY SOURCES ARE FOUND THAT CAN ADEQUATELY SERVE THE PROPOSED PROJECT, THIS WOULD BE CONSIDERED A SIGNIFICANT IMPACT.

General Impact Discussion

EID estimates that the proposed Specific Plan would require approximately 3,396 EDUs of water supply at buildout based on proposed land uses.

Proposed Specific Plan Provisions

The proposed Specific Plan provides that the northern (Euer Ranch) portion of the Plan Area would be served by EID and AD No. 3. The Specific Plan notes that additional sources of water supply must be found before the remaining portion (Carson Creek) of the site can be served. The Specific Plan estimates that the Plan Area at buildout would require a total of 1,750 ac-ft of water annually.

Because the southern (Carson Creek Ranch) portion of the proposed project site is outside of the EID service area, this portion would be required to annex to the district. The portion of the proposed project site currently outside of the EID service boundary is contiguous to the EID boundaries and is, therefore, eligible for annexation into the EID service area. Because the boundaries of AD No. 3 are fixed by law, a new assessment district would need to be created to serve the southern portion of the project site (Archuletta, pers. comm., 1996). The project site is currently allocated 300 EDUs of water supply. The project applicant would be required to purchase an additional 3,096 EDUs to meet the estimated water supply needs for buildout of the Specific Plan. No additional water rights are currently available for AD No. 3. EID is presently seeking additional water sources for AD No. 3. Until additional water supply sources are found that can adequately serve the proposed project at buildout, water supply impacts would be significant.

> IMPACT 4.18-2: WATER DISTRIBUTION. BUILDOUT OF THE SPECIFIC PLAN WOULD REQUIRE THE EXTENSION OF THE EXISTING WATER DISTRIBUTION INFRASTRUCTURE TO THE PROJECT SITE. THE EXISTING WATER DISTRIBUTION FACILITIES ARE OF ADEQUATE SIZE AND CAPACITY TO SERVE THE SPECIFIC PLAN AT BUILDOUT, AND THE SPECIFIC PLAN PROVIDES FOR THE NECESSARY WATER INFRASTRUCTURE ONSITE. THIS WOULD BE CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

General Impact Discussion

EID is planning infrastructure improvements such as a new storage tank at the 820-foot elevation to provide for buildout of the project area and other development south of U.S. Highway 50. EID reports that the existing water facilities appear to be of adequate size and capacity to meet the anticipated residential, commercial, and industrial water needs of the proposed Specific Plan area at buildout.

Proposed Specific Plan Provisions

The proposed water system for the Specific Plan area is shown in Exhibit 4.18-1. The proposed facilities will include a combination of 8-, 10-, and 12-inch watermains. Pressure reducing stations will be required to reduce pressures from the 820-foot elevation zone to a 770-foot elevation zone. Because the existing EID facilities are of adequate size and capacity to serve the proposed Specific Plan area at buildout and the Specific Plan provides plans for the necessary water infrastructure onsite, water infrastructure impacts would be considered a less-than-significant impact.

> IMPACT 4.18-3: FIREFLOW DEMAND. BUILDOUT OF THE SPECIFIC PLAN WOULD RESULT IN INCREASED FIREFLOW DEMAND. BECAUSE INSUFFICIENT WATER SUPPLY IS CURRENTLY AVAILABLE TO SERVE THE PROJECT SITE, FIREFLOW DEMAND FOR THE PROJECT SITE WOULD NOT BE MET UNTIL AN ADDITIONAL WATER SUPPLY SOURCE IS FOUND. THIS WOULD BE A SIGNIFICANT IMPACT.

General Impact Discussion

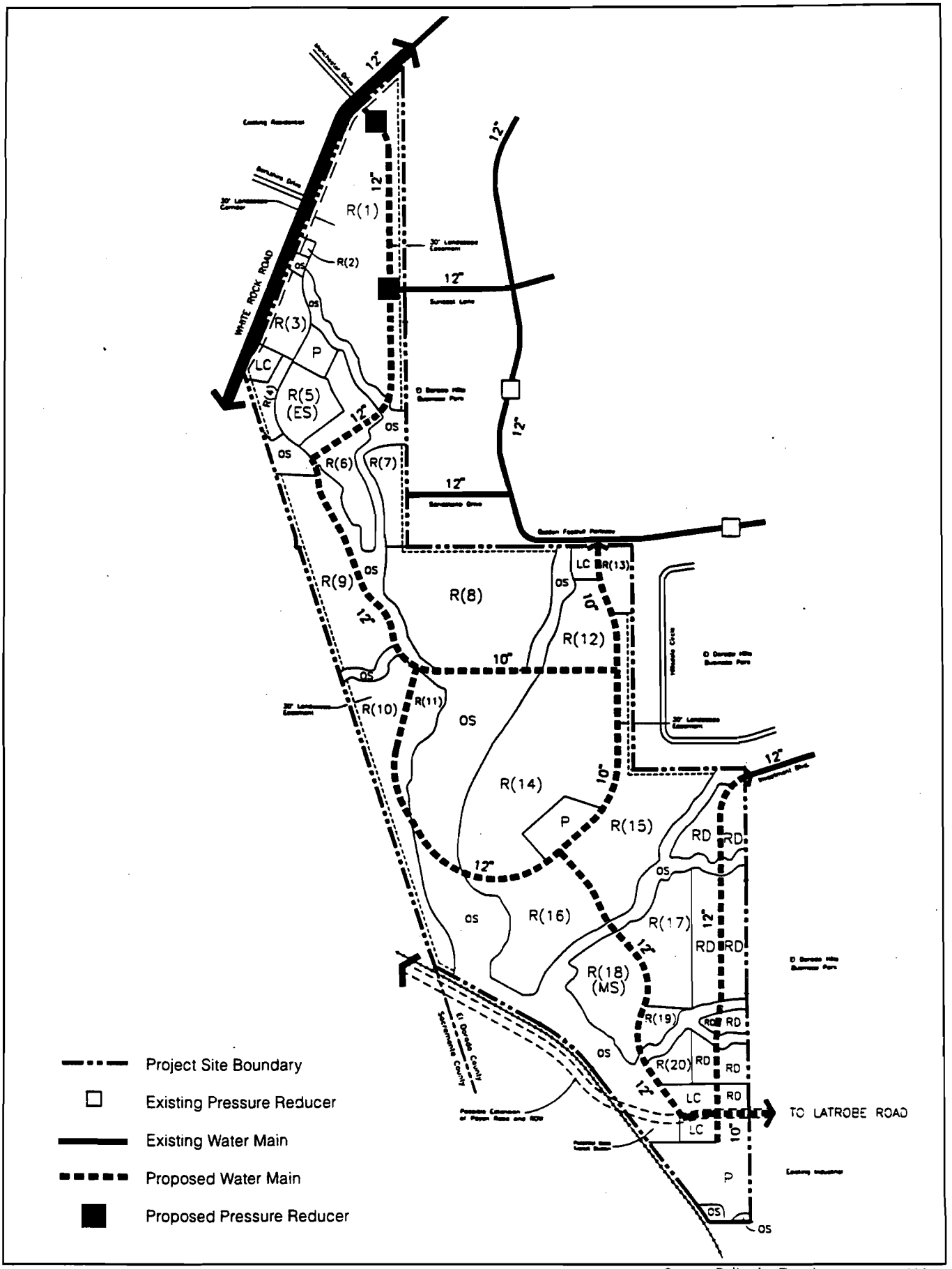
Fireflow requirements for the proposed project would be 1,000 gallons per minute (gpm) for a 2-hour duration with 20 pounds per square inch (psi) of residual pressure (El Dorado Hills Fire Department 1994). Until an adequate water supply is found, there would be inadequate water to meet the fireflow requirements for the proposed project site.

Proposed Specific Plan Provisions

The Specific Plan does not specifically address fireflow demands. Because existing water supply is inadequate to serve the project site, fireflow requirements would not be met for the proposed project site until an additional source is found. This would be a significant impact.

> IMPACT 4.18-4: GENERAL PLAN CONSISTENCY. THE PROPOSED SPECIFIC PLAN WOULD BE REQUIRED TO COMPLY WITH RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES. BECAUSE INSUFFICIENT WATER IS CURRENTLY AVAILABLE TO SUPPLY THE PROJECT SITE AT BUILDOUT, THE SPECIFIC PLAN WOULD BE INCONSISTENT WITH POLICIES 5.2.1.2, 5.2.1.3, AND 5.2.1.4. THIS WOULD BE CONSIDERED A SIGNIFICANT IMPACT.

General Plan policy 5.2.1.2 requires that an adequate quantity of water for all uses, including fire protection, be provided for approval of discretionary development. In addition, General Plan policy 5.2.1.3 requires that all medium-density, high-density, and multi-family residential, commercial, industrial, and research and development projects be required to connect to public water systems when located within Community Regions. Policy 5.2.1.4 requires that rezoning and subdivision approvals in



Source: Palisades Development, Inc., 1996.

Proposed Water System

EXHIBIT 4.18-1

CARSON CREEK SPECIFIC PLAN

Not To Scale

NORTH

Community Regions or other areas dependent on public water supply be subject to the availability of a permanent and reliable water supply. Furthermore, Policy 5.2.1.8 specifies that although the preparation and approval of specific plans may occur without the availability of water guarantees, the timing for water guarantees shall be established within the policies of each specific plan to ensure consistency with Policy 5.2.1.4. The El Dorado Hills area is considered a Community Region under the General Plan. Because there is currently an insufficient supply of water for AD No. 3, which includes the northern (Euer Ranch) portion of the project site, and a water supply has not been identified for other project properties, the Specific Plan would be inconsistent with General Plan policies 5.2.1.2, 5.2.1.3, and 5.2.1.4. This would be considered a significant impact.

4.18.3 MITIGATION MEASURES

Mitigation measures are provided below to reduce significant or potentially significant water service impacts of the proposed project to the extent feasible. As discussed in Section 4.1 (Introduction to Environmental Analysis), mitigation measures are numbered corresponding to the number of the impact to be mitigated.

MITIGATION MEASURE 4.18-1: WATER CONSUMPTION

Project impacts cannot be reduced to a less-than-significant level until the EID procures new water supplies that are sufficient to meet water needs of the proposed Specific Plan at buildout in conjunction with existing planned growth, or an alternative public water source is secured. Implementation of the following mitigation measures would reduce potential project impacts on water supply. The project applicant would be required to implement these measures before approval of building permits.

a) In accordance with EID Policy Statement No. 22, the project applicant shall prepare a Facility Plan Report (FPR) for the proposed project. The FPR shall address the expansion of the water and sewer facilities and the specific fire flow requirements for all phases of the project.

b) Low-volume and low-flow fixtures shall be installed to reduce water consumption.

c) Efficient irrigation systems shall be installed to minimize runoff and evaporation and maximize the water that will reach plant roots. One or any combination of the following methods of increasing irrigation efficiency shall be employed: drip irrigation, soil moisture sensors, and automatic irrigation systems. Mulch shall be used extensively in all landscaped areas. Drought resistant and native vegetation shall be used in landscaped areas.

MITIGATION MEASURE 4.18-3: FIREFLOW DEMAND

Apply mitigation measure 4.18-1 and no further mitigation is available.

MITIGATION MEASURE 4.18-4: GENERAL PLAN CONSISTENCY

Apply mitigation measure 4.18-1 and no further mitigation is available.

4.18.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the proposed project would result in less-than-significant impacts to water infrastructure. Impacts associated with implementation of the proposed project would remain significant in the areas of water supply, fireflow needs, and General Plan consistency until additional water sources are procured that would adequately serve the proposed project at buildout.

4.19 WASTEWATER SERVICE

4.19.1 EXISTING CONDITIONS

WASTEWATER INFRASTRUCTURE

The El Dorado Irrigation District (EID) collects and treats wastewater in the project area. Existing EID wastewater facilities in the vicinity of the project site include: an 8-inch sewer force main in White Rock Road; a sewage lift station approximately 500 feet south of Berkshire Drive at White Rock Road; a 10-inch gravity sewer main with a stubout to the project site at Suncast Lane; and two sewage lift stations, gravity sewers and force mains along portions of the eastern boundary of the project site in the existing El Dorado Hills Business Park. In addition, a 10-inch reclaimed wastewater line is located in Latrobe Road to the east of the project site (Eden 1994).

WASTEWATER CAPACITY

Wastewater generated in the project area is treated at the El Dorado Hills Wastewater Treatment Plant (EDHWTP). At the EDHWTP, the wastewater is subjected to a secondary level of treatment, and the reclaimed wastewater is currently piped to several users in the El Dorado Hills area (El Dorado County 1996a).

The EDHWTP treats wastewater from approximately 3,620 sewer connections in the El Dorado Hills area. Currently, the EDHWTP has a capacity of 1.6 million gallons per day (mgd) average dry weather flow (ADWF). In 1993, the ADWF to the EDHWTP was 1.1 mgd (El Dorado County 1996a). Currently, there are plans to expand the capacity of the EDHWTP to 3 mgd ADWF (Starns 1994).

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

The Public Services and Utilities Element of the El Dorado County General Plan, adopted January 1996, provides the following objectives and policies relative to wastewater collection and treatment:

> **Objective 5.3.1: Wastewater Capacity** - Ensure the availability of wastewater collection and treatment facilities of adequate capacity to meet the needs of multifamily, high, and medium density residential areas, and commercial and industrial areas.
>
> **Policy 5.3.1.1:** High-density and multifamily residential, commercial, and industrial projects shall be required to connect to public wastewater collection facilities as a condition of approval except in Rural Centers.

Policy 5.3.1.2: The creation of lots less than five acres in size in Medium Density Residential areas relying on onsite septic systems shall only occur when a public water supply is available for domestic use. If public water is not available, such lots shall not be less than five acres.

Policy 5.3.1.3: Private community wastewater collection and on-site disposal systems and/or package wastewater treatment plants may be considered an acceptable alternative to traditional wastewater treatment for mobile home parks, commercial and industrial centers, and multiple family residential in Rural Centers.

Policy 5.3.1.4: Public community wastewater collection and on-site disposal systems in remote areas may be considered where the geology may not be conducive to constructing individual sewage disposal systems.

Objective 5.3.2: Rural Sewage Disposal/Alternative Wastewater Systems - Ensure the development of efficient and environmentally safe individual sewage disposal systems in rural areas while encouraging and promoting alternative and innovative wastewater treatment.

Policy 5.3.2.1: Promote and support programs to educate homeowners on the care and maintenance of individual sewage disposal systems.

Policy 5.3.2.2: Alternative rural wastewater systems should be reviewed by Environmental Management to determine applicability in El Dorado County. Any applicable systems shall be included in the County Zoning ordinance.

Policy 5.3.2.3: Consider private community wastewater collection and on-site disposal systems and/or package wastewater treatment plants as an acceptable alternative to wastewater treatment if managed by a public entity.

Furthermore, Policy 5.1.2.2 provides that provision of public services to new discretionary development shall not result in a reduction of service to current users below minimum standards as determined by the wastewater purveyor (El Dorado County 1996).

4.19.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

A significant impact would occur with full implementation of the Specific Plan if it would result in one or more of the following:

- Wastewater generation in excess of the available treatment capacity.
- Wastewater generation in excess of levels that can be conveyed by the existing or planned distribution system.
- Inconsistency with the El Dorado County General Plan.

IMPACTS

IMPACT 4.19-1: WASTEWATER INFRASTRUCTURE. BUILDOUT OF THE PROPOSED SPECIFIC PLAN WOULD REQUIRE THE EXTENSION OF THE EXISTING WASTEWATER INFRASTRUCTURE TO THE PROJECT SITE. THE SPECIFIC PLAN PROVIDES FOR THE NECESSARY ONSITE IMPROVEMENTS. EID DOES NOT ANTICIPATE ANY INFRASTRUCTURE LIMITATIONS OR DIFFICULTIES IN ACCOMMODATING PROJECT WASTEWATER FLOWS. THEREFORE, THIS WOULD BE CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

General Impact Discussion

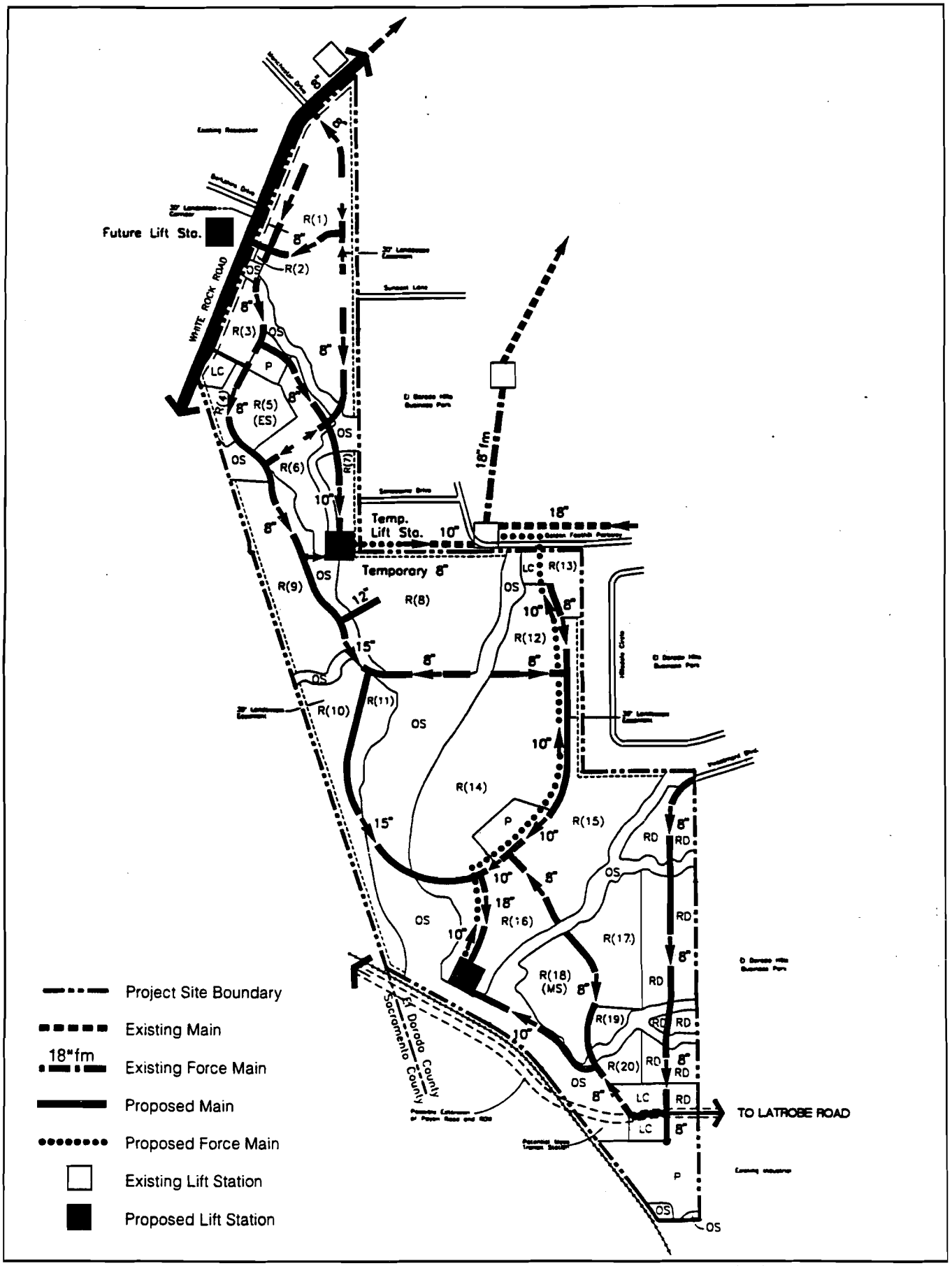
Buildout of the Specific Plan would involve the residential, commercial, and industrial development of the project site, resulting in increased need for wastewater services in the EID service area. The current EID sewer facilities in the project vicinity are not of adequate size and capacity to meet the anticipated residential, commercial, and industrial needs anticipated with buildout of the Specific Plan. Major upgrades to the existing lift stations and force mains would be required to accommodate flows associated with Specific Plan buildout.

Proposed Specific Plan Provisions

The proposed sanitary sewer system for the Specific Plan area is shown in Exhibit 4.19-1. The proposed facilities would be a combination of gravity-fed lines from 8 to 15 inches in diameter, temporary and permanent sewage lift stations, and a 10-inch force main. All facilities would be installed in street right-of-ways or within EID easements (Palisades Development 1996).

EID recommends bypassing the existing lift stations and constructing a single lift station and force main that connects directly to the EDHWTP. The recommended lift station would be located at a point near Carson Creek along the southwestern property boundary. EID Policy Statement No. 22 requires that the project applicant to submit for approval a Facility Plan Report (FPR) that details the expansion of sewer facilities for the proposed project (Eden 1994).

EID does not anticipate any infrastructure limitations or difficulties in accommodating the wastewater flows from the project site at buildout with the proposed Specific Plan infrastructure improvements (Archuletta 1994). Therefore, project impacts would be considered less-than-significant (4.19-1).



Source: Palisades Development, Inc., 1996.

Proposed Sewer System

EXHIBIT 4.19-1

CARSON CREEK SPECIFIC PLAN

Not To Scale

NORTH

IMPACT 4.19-2: WASTEWATER CAPACITY. BUILDOUT OF THE PROPOSED SPECIFIC PLAN WOULD GENERATE WASTEWATER THAT WOULD BE TREATED AT THE EL DORADO HILLS WASTEWATER TREATMENT PLANT (EDHWTP). THE EDHWTP, WITH PLANNED EXPANSIONS, WOULD BE ABLE TO ACCOMMODATE THE ADDITIONAL FLOWS GENERATED BY THE PROJECT SITE AT BUILDOUT. THIS WOULD BE CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

General Impact Discussion

The project applicant estimates that the development under the proposed Specific Plan would generate 1.1 mgd of wastewater flow (Palisades Development 1996).

Proposed Specific Plan Provisions

The proposed Specific Plan does not have any provisions that specifically address wastewater capacity. The Specific Plan does state that development of the Plan Area would generate a total of 1.1 mgd of wastewater.

EID anticipates that the EDHWTP, with planned expansions, would be able to handle the additional effluent generated by buildout of the project site and maintain existing levels of service to the remainder of the EDHWTP service area (Archuletta 1994). Because the EDHWTP, with planned expansions, would be able to handle the wastewater generated by buildout of the project site without affecting existing levels of service to the EDHWTP service area, project impacts to wastewater capacity would be less-than-significant.

IMPACT 4.19-3: GENERAL PLAN CONSISTENCY. THE PROPOSED SPECIFIC PLAN WOULD COMPLY WITH ALL RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES RELATED TO WASTEWATER SERVICE. THIS WOULD BE CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

No inconsistency with El Dorado County General Plan goals or policies is anticipated with implementation of the proposed Specific Plan. The project area would be required to comply with all County and EID requirements. Therefore, a less-than-significant impact is anticipated.

4.19.3 MITIGATION MEASURES

No mitigation measures are required.

4.19.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The proposed project would not significantly affect wastewater service.

4.20 ELECTRICITY AND NATURAL GAS

4.20.1 ENVIRONMENTAL SETTING

ELECTRICITY

Electricity services to the project area are provided by Pacific Gas & Electric Company (PG&E) from their Clarksville 1103 circuit via both overhead and underground lines (Luna 1994). Underground service stubs are available at the eastern boundary of the project site in Suncast Lane and Sandstone Drive. PG&E has overhead facilities on the project site that run parallel with the County line (Palisades Development 1994).

NATURAL GAS

Natural gas services to the project area are provided by PG&E. The nearest point of connection for gas service is the intersection of White Rock and Latrobe Roads. Four-inch service ties are also available along the eastern boundary of the project site, in the street stubs from the El Dorado Hills Business Park, Suncast Lane, and Sandstone Drive. PG&E has a 10-inch high pressure (250 psi) gas main in White Rock Road that is not available for additional service because it cannot be tapped into (Palisades Development 1994).

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

The Public Services and Utilities Element of the El Dorado County General Plan, adopted January 23, 1996, provides the following objective for telephone and cable television services:

> **Objective 5.6.1: Provide Utility Services** - Community Regions shall be provided with adequate and reliable utility services such as gas, electricity, communication facilities, satellite and/or cable television, and water distribution facilities, while recognizing that levels of service will differ between Community Regions, Rural Centers, and Rural Regions.

4.20.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

A significant impact would occur with full implementation of the Specific Plan if it would result in one or more of the following:

- Development that cannot be served with electricity or natural gas.
- An inconsistency between the Specific Plan and the El Dorado County General Plan.

IMPACTS

IMPACT 4.20-1: ELECTRICITY SERVICE. THE PROPOSED SPECIFIC PLAN WOULD RESULT IN AN INCREASED DEMAND FOR ELECTRICITY SERVICE. THIS INCREASED DEMAND WOULD RESULT IN LESS-THAN-SIGNIFICANT IMPACTS ON ELECTRICITY SERVICE.

General Impact Discussion

Buildout of the Specific Plan would generate up to 2,701 additional residential dwelling units, as well as commercial and research and development land, resulting in increased demand for electricity services in the El Dorado Hills area.

Proposed Specific Plan Provisions

The proposed Specific Plan states that electricity service to the Specific Plan area would be provided by PG&E. The Specific Plan notes the existing underground and overhead facilities from which service could be extended to the project site. The Specific Plan also provides that existing overhead facilities along the western boundary of the project site would be undergrounded at the time of roadway construction, and the corresponding utility easements would be abandoned.

The project applicant would be required to coordinate with PG&E during development of the project site to ensure that infrastructure additions comply with PG&E specifications. PG&E does not foresee any problems or difficulties associated with extending the existing electricity infrastructure to the project site. PG&E also does not foresee any problems or difficulties associated with meeting the increased electrical demand that would result from development consistent with the Specific Plan (Luna, pers. comm., 1994). Because PG&E does not anticipate difficulties in either extending the existing electricity infrastructure to the project site or meeting the electricity demands associated with proposed Specific Plan land uses, there would be a less-than-significant impact associated with buildout of the Specific Plan.

IMPACT 4.20-2: NATURAL GAS SERVICE. THE PROPOSED SPECIFIC PLAN WOULD RESULT IN AN INCREASED DEMAND FOR NATURAL GAS SERVICE. THIS INCREASED DEMAND WOULD RESULT IN LESS-THAN-SIGNIFICANT IMPACTS ON NATURAL GAS SERVICE.

General Impact Discussion

Development of the proposed Specific Plan would result in an increased demand for natural gas service in the El Dorado Hills area.

Proposed Specific Plan Provisions

The proposed Specific Plan states that PG&E would provide natural gas service to the project site. The Specific Plan notes the locations of existing natural gas infrastructure from which natural gas service could be extended to the project site.

Implementation of the project site would require the installation of the necessary natural gas infrastructure prior to development under the Specific Plan. PG&E does not anticipate any problems or difficulties associated with extending the existing natural gas infrastructure to the project site. In addition, development consistent with the Specific Plan would create an increased demand for natural gas services. PG&E does not foresee any difficulties in meeting the increased natural gas demand associated with development under the Specific Plan (Luna, pers. comm., 1994). Because PG&E does not anticipate difficulties in either extending the existing natural gas infrastructure to the project site or meeting the natural gas demands associated with proposed Specific Plan land uses, there would be a less-than-significant impact associated with buildout of the Specific Plan.

IMPACT 4.20-3: GENERAL PLAN CONSISTENCY. THE PROPOSED SPECIFIC PLAN PROVIDES OPTIONS FOR FINANCING INFRASTRUCTURE IMPROVEMENTS TO ENSURE ADEQUATE ELECTRICITY AND NATURAL GAS SERVICES IN ACCORDANCE WITH OBJECTIVE 5.6.1.

The Specific Plan includes a phasing plan and a financing plan to ensure that needed infrastructure improvements are in place to serve the development as each phase proceeds and that the new development pays its share of the costs of such improvements. Electricity and natural gas infrastructure will be installed underground to minimize negative aesthetic, health and safety, and environmental impacts. The Specific Plan would be consistent with General Plan Objective 5.6.1, and electricity and natural gas impacts would be considered less than significant.

4.20.3 MITIGATION MEASURES

No mitigation measures are required.

4.20.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Electricity and natural gas services would not be significantly affected by the proposed project.

4.21 TELEPHONE AND CABLE TELEVISION

4.21.1 EXISTING CONDITIONS

TELEPHONE

The project site is within the service area of Pacific Bell Telephone Company (Pacific Bell). The current facilities near the site consist of underground transmission lines along White Rock Road, a combination of underground and overhead transmission lines along Latrobe Road, and underground transmission lines serving the El Dorado Hills Business Park. Pacific Bell currently serves the subdivision to the north (Springfield Meadows) and the El Dorado Hills Business Park to the east of the project site (Waldfogel, pers. comm., 1994).

No Pacific Bell facilities currently exist on the project site. Pacific Bell service could be extended to the project site from existing underground transmission lines along White Rock Road or from existing transmission lines serving the El Dorado Hills Business Park (Waldfogel, pers. comm., 1994).

CABLE TELEVISION

Cable television service in western El Dorado County is provided by King Video Cable (King), located in Diamond Springs. King currently provides cable service to the El Dorado Hills area north of U.S. Highway 50. Existing King cable facilities consist of underground cables. King has no cable facilities south of Highway 50 at present (Miller, pers. comm., 1994).

King reports that it will construct the necessary cable infrastructure south of Highway 50 as soon as it becomes economically feasible. Economic feasibility is governed by the existing franchise agreement between King and El Dorado County that requires King to construct and install the necessary cable infrastructure if minimum housing density standards are met: 40 homes per lineal mile of cable or approximately 5 houses per 800 feet of cable. If the density does not meet the franchise agreement standards, the developer must either pay for the installation of cable infrastructure or wait until the minimum standards are met (Miller, pers. comm., 1994).

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

The Public Services and Utilities Element of the El Dorado County General Plan provides the following objective for telephone and cable television services:

Objective 5.6.1: Provide Utility Services - Community Regions shall be provided with adequate and reliable utility services such as gas, electricity, communication facilities, satellite and/or cable television, and water distribution facilities, while recognizing that levels of service will differ between Community Regions, Rural Centers, and Rural Regions.

4.21.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

A significant impact would occur with full implementation of the Specific Plan if it would result in one or more of the following:

- Development that cannot be served with telephone or cable television.
- An inconsistency between the Specific Plan and the El Dorado County General Plan.

IMPACTS

IMPACT 4.21-1: TELEPHONE SERVICE. IMPLEMENTATION OF THE SPECIFIC PLAN WOULD RESULT IN AN INCREASED DEMAND FOR TELEPHONE SERVICES ON THE PROJECT SITE. THIS INCREASED DEMAND WOULD RESULT IN LESS-THAN-SIGNIFICANT IMPACTS ON TELEPHONE SERVICE.

General Impact Discussion

Buildout of the Specific Plan would result in increased residential, commercial, and industrial demand for telephone services in the El Dorado Hills area. Telephone facilities to the project site would be provided by Pacific Bell. The project would connect to the existing underground transmission lines along White Rock Road. Pacific Bell would install the necessary main line facilities that would be required to serve the site at buildout of the Specific Plan. During Phase I of the Specific Plan buildout, telephone service would be provided through an extension of the underground facilities along White Rock Road. Eventually, as Phase II buildout occurs, telephone service could be provided through an extension of the transmission lines serving the El Dorado Hills Business Park (Waldfogel, pers. comm., 1994).

Proposed Specific Plan Provisions

The proposed Specific Plan specifies that Pacific Bell would provide telephone service to the Plan Area. The Specific Plan notes the location of existing Pacific Bell telephone facilities in the vicinity of the project site. Furthermore, the proposed Specific Plan provides that additional main line facilities would be required in order to serve the site at buildout and that such facilities would be installed by Pacific Bell.

However, the project applicant would be responsible for the onsite installation of the underground transmission structures. The project applicant would have to coordinate with Pacific Bell during infrastructure on the project site to ensure compliance with their requirements. Extension lines from existing facilities to the project site would be installed concurrently with other utility installations. Pacific Bell does not foresee any difficulties in providing telephone service to the Specific Plan area (Waldfogel, pers. comm., 1994).

No significant impacts related to telephone service are anticipated.

IMPACT 4.21-2: CABLE TELEVISION SERVICE. DEVELOPMENT OF THE PROPOSED SPECIFIC PLAN WOULD RESULT IN AN INCREASED DEMAND FOR CABLE TELEVISION SERVICES ON THE PROJECT SITE. THIS INCREASED DEMAND WOULD RESULT IN LESS-THAN-SIGNIFICANT IMPACTS ON CABLE TELEVISION SERVICE.

General Impact Discussion

Buildout of the proposed Specific Plan would result in the construction of up to 2,701 residential dwelling units, which would increase the demand for cable television services in the El Dorado Hills area.

Proposed Specific Plan Provisions

The proposed Specific Plan does not contain any provisions that specifically address cable television impacts.

Cable television services to the project site would be provided by King Video Cable (King). Based on the number of houses proposed under the Specific Plan, King reports that it would be economically feasible to construct the cable infrastructure to the Plan Area. Cable infrastructure could also be installed in existing subdivisions (Springfield Meadows) and planned subdivisions (Springfield/Joerger Ranch) south of U.S. Highway 50. Cable facilities to the Specific Plan area would extend from the nearest existing facilities at Arrowhead Road and Kings Canyon Drive, approximately one mile north of the Plan Area. King would coordinate with the County to obtain the necessary easements along roadways prior to underground cable installation. King does not foresee any difficulties relating to obtaining the necessary utility easements (Miller, pers. comm., 1994). Because development consistent with the Specific Plan would result in sufficient housing density to justify the installation of cable facilities pursuant to King's agreement with the County, and no difficulties relating to utility easements are foreseen, there would be less-than-significant impacts on cable television service.

IMPACT 4.21-3: GENERAL PLAN CONSISTENCY. THE PROPOSED SPECIFIC PLAN PROVIDES OPTIONS FOR FINANCING INFRASTRUCTURE IMPROVEMENTS TO ENSURE ADEQUATE TELEPHONE AND CABLE TELEVISION SERVICES IN ACCORDANCE WITH OBJECTIVE 5.6.1.

The Specific Plan includes a phasing plan and provides options for financing to ensure that needed infrastructure improvements are in place to serve the development as each phase proceeds and that the new development pays its share of the costs of such improvements. The Specific Plan would be consistency with General Plan Objective 5.6.1, and telephone and cable television impacts would be considered less than significant.

4.21.3 MITIGATION MEASURES

No mitigation measures are required.

4.21.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Telephone and cable televisions services would not be significantly affected by the proposed project.

4.22 RISK OF UPSET

The following information was obtained from Youngdahl & Associates, Inc. (Y&A) in February 1995 and independently reviewed and evaluated by Michael Brandman Associates and El Dorado County staff. Y&A conducted a Risk of Upset analysis to identify and evaluate the potential for hazardous substances (toxic waste, gasoline, etc.) to exist on the Carson Creek site, and to assess the effect on the proposed project. To determine the presence and potential for hazardous materials and/or waste contamination on the project site from existing and past onsite and surrounding land uses, Y&A performed the following tasks:

- conducted interviews with individuals familiar with past (historic) uses of the project area;
- conducted interviews with personnel at the following agencies:
  - El Dorado County Environmental Management Department, Solid Waste and Hazardous Materials Division); and the
  - El Dorado Hills Fire Protection District.
- performed a review of facility records made available by the client, in an effort to identify past ownership and usage of the project site and surrounding area;
- performed a review of historic aerial photographs in an effort to identify past uses of the project site and surrounding area;
- conducted a reconnaissance of the site to assess existing site conditions in an effort to supplement findings based on the review of aerial photographs, agency consultation, and review of environmental reports.

This analysis has been prepared in accordance with the requirements set forth by CEQA as it relates to the issue of hazardous substances. Two Phase I Environmental Site Assessments (ESAs) have been performed for the project site, one for the original Carson Creek property and one for the former Euer Ranch Property, by Wheeldon & Associates in September 1990 and January 1991, respectively. Information contained in these Phase I ESAs have been incorporated by reference and used to supplement information provided in the Risk of Upset analysis. These Phase I ESAs are included in Appendix F of this EIR. The following discussion provides a summary of this Risk of Upset analysis and its findings.

4.22.1 ENVIRONMENTAL SETTING

PROJECT LOCATION AND DESCRIPTION

During reconnaissance of the site, a segment of Carson Creek and several unnamed tributaries were observed extending southwesterly through the central portion of the project site. Several test pits which appear to have been utilized for mineral exploration, were also visible onsite. Three farm houses and several out buildings (work shed, maintenance building, etc.) associated with the former Euer Ranch property were observed in the northern portion of the project site. An additional farm house, barn and ranching-related structure was visible in the western portion of the site on the original Carson Creek Ranch. Additionally, a number of trucks and farm-related vehicles were observed throughout the former Euer Ranch portion of the site.

According to the Phase I ESA prepared for the former Euer Ranch property, two underground storage tanks (USTs) were installed onsite. However, these USTs appeared never to have been used for fueling purposes and were removed from the property approximately three to four years ago. The Euer Ranch ESA also identified the presence of one hand-dug water well and leach field on the former Euer Ranch property, while the Carson Creek ESA identified the existence of two hand-dug wells, a septic sump, and possible leach field on the original Carson Creek Ranch portion of the site. An open pit that may have also been used as a water well was identified in the southern portion of the project site and filled with lumber products.

PROJECT SITE HISTORY

The northern portion of the site was previously the Euer Ranch. The ranch, which has been in existence since the 1860s, has long been used for dry land cattle grazing. A lode gold mine was reported to have existed within the northwestern portion of the ranch. Evidence of placer mining is notable within onsite drainages, particularly within the northwestern portion of the site.

RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES

The El Dorado County General Plan provides an objective and policies related to hazardous materials in the Public Health and Safety Element. Following is the objective and policies that are relevant to the proposed Specific Plan.

> **Objective 6.6.1: Regulation of Hazardous Materials.** Regulate the use, storage, manufacture, transport and disposal of hazardous materials, in accordance with State and Federal regulations.

Policy 6.6.1.1: The *Hazardous Waste Management Plan* shall serve as the implementation program for management of hazardous waste in order to protect the health, safety, property of residents and visitors, and to minimize environmental degradation while maintaining economic viability.

Policy 6.6.1.2: Prior to approval of any subdivision of land or issuing of a building permit, it shall be determined whether the subdivision or parcel is located on a contaminated site included in a list on file with the Environmental Management Department as provided by the State of California. If contamination is found to exist, it shall be corrected prior to the issuance of a new land use entitlement or building permit.

4.22.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

For the purpose of this analysis, determination of a significant impact related to hazardous substances was based on criteria set forth in Appendix G of the State CEQA Guidelines. The criteria used to determine whether a significant risk of upset impact would occur from project implementation are as follows:

- creation of a condition which poses a public health hazard; and
- exposure of workers to hazardous materials and health risks during construction or maintenance activities.

IMPACTS

IMPACT 4.22-1: WORK SHED AND BARN AREAS. A POTENTIAL EXISTS FOR INDIVIDUALS TO BE EXPOSED TO CONTAMINATED SOILS IN THE VICINITY OF THE WORK SHED AND BARN DURING CONSTRUCTION OF THE PROJECT AND ONGOING LANDSCAPING ACTIVITIES. THIS IMPACT IS CONSIDERED TO BE POTENTIALLY SIGNIFICANT.

Historically, chemicals have been stored in the work shed and barn. Maintenance and cleaning of farm-related vehicles may have also occurred at these locations. Based on these activities, implementation of the proposed project could result in a potential for individuals to be exposed to contaminated soils in the vicinity of the work shed and barn. This impact is considered potentially significant.

IMPACT 4.22-2: ONSITE STRUCTURES. IMPLEMENTATION OF THE PROPOSED PROJECT WOULD NOT EXPOSE INDIVIDUALS TO ASBESTOS CONTAINING MATERIALS (ACMS) BECAUSE THE CONSTRUCTION DEMOLITION WOULD BE OF BARNS CONSTRUCTED ENTIRELY OF WOOD, AND THE EXISTING MOBILE HOME WOULD BE RELOCATED AND NOT DEMOLISHED. THIS IMPACT IS CONSIDERED TO BE LESS-THAN-SIGNIFICANT.

Until 1980, numerous types of building materials, such as roofing paper, shingles, drywall, drywall texturing, linoleum, and mastic, contained considerable amounts of asbestos. All of the structures located on the project site were constructed prior to 1980. However, the buildings that would be demolished with implementation of the proposed project are barns, constructed entirely of wood. In addition, a mobile home situated on the site would be relocated offsite, and not demolished with construction of the project. Since wood barns are not comprised of ACMs, and the mobile home would be relocated offsite, human exposure to asbestos related to project construction is not expected to occur. This impact would be considered less-than-significant.

IMPACT 4.22-3: WELLS, SEPTIC TANKS, AND LEACH FIELDS. THREE WATER WELLS, ONE OPEN PIT, ONE SEPTIC SUMP, AND UP TO TWO LEACH FIELDS EXIST ON THE PROJECT SITE PROVIDING POSSIBLE ENTRYWAYS FOR HAZARDOUS SUBSTANCES TO REACH SOILS AND GROUNDWATER. HOWEVER, THE PROJECT WILL NOT USE SEPTIC SYSTEMS OR WELLS, THE POSSIBLE USE OF HAZARDOUS SUBSTANCES IN RELATION TO THESE SOURCES IS CONSIDERED TO BE LOW, THE NUMBER OF SITES IN RELATION TO THE PROJECT SITE IS VERY LOW, AND ANY POSSIBLE SUBSTANCES THAT COULD HAVE ENTERED THESE SITES WOULD HAVE UNDERGONE SOME LEVEL OF DISSIPATION/FLUSHING OVER TIME. GIVEN THESE CONSIDERATIONS, THIS IMPACT IS CONSIDERED TO BE LESS-THAN-SIGNIFICANT.

One water well and leach field is located on the former Euer Ranch property. Two water wells, a septic sump, and possible leach field are located on the original Carson Creek Ranch property. An open pit that may have also been used as a water well was also observed in the southeastern portion of the project site. The possibility exists that some hazardous substance may have been used in the past that could have been deposited into the water wells, or entered the septic system from use of domestic cleaning products or other chemicals. These substances would have eventually percolated the soils and may have reached groundwater if it was proximate to the percolation areas, or been directed to the leach field as part of the overall septic system during its operation. However, the proposed project would not rely on septic systems or well water, thereby eliminating exposure of onsite residents to possible groundwater contamination from these sources. Moreover, the number of sites for hazardous substances to have entered the soil and groundwater system in relation to the overall project site is very small. Last, any substances transmitted during percolation would have dissipated or been flushed (i.e., through rainfall) over time. Given these considerations, this impact is considered less-than-significant.

IMPACT 4.22-4: HISTORICAL MINING. DUE TO PREVIOUS ONSITE MINING ACTIVITIES, THERE IS A POTENTIAL FOR MINING-RELATED CHEMICALS SUCH AS MERCURY TO HAVE BEEN DEPOSITED WITHIN ONSITE DRAINAGES (I.E., CARSON CREEK AND UNNAMED TRIBUTARIES) AND/OR SHALLOW GROUNDWATER. IMPLEMENTATION OF THE PROPOSED PROJECT MAY RESULT IN THE POTENTIAL FOR INDIVIDUALS TO BE EXPOSED TO THESE CHEMICALS DURING DEVELOPMENT OF THE SITE. THIS IS CONSIDERED A POTENTIALLY SIGNIFICANT IMPACT.

As indicated previously, exploration for mineral deposits has previously occurred on the project site. Mercury was frequently used to process gold deposits that were uncovered during onsite exploration activities. As a result of this process, there is a potential for mercury to have been deposited in onsite drainages (i.e., Carson Creek and unnamed tributaries) and/or areas of shallow groundwater. Implementation of the project may result in the potential for individuals to be exposed to these chemicals during construction of the site. This is considered to be a potentially significant impact.

IMPACT 4.22-5: CONTIGUOUS INDUSTRIES. POTENTIAL ONSITE CONTAMINATION IS NOT ANTICIPATED TO OCCUR FROM THE DISCHARGE OF STORMWATER ONTO THE PROJECT SITE FROM ADJACENT OFFSITE INDUSTRIAL USES DUE TO THE LACK OF USES NECESSITATING AN NPDES PERMIT (EL DORADO HILLS BUSINESS PARK), OR THE EXISTENCE OF AN NPDES PERMIT (WETSEL-OVIATT). THIS WOULD BE CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

As indicated previously, the El Dorado Hills Business Park and the Wetsel-Oviatt Lumber Company are located to the east and south of the project site, respectively. Tributaries to Carson Creek flow from these areas across the project site. However, discharges into surface waters is regulated by the RWQCB through a National Pollution Discharge Elimination System (NPDES) permit. The NPDES permit specifies, among other items, the volume of discharge and constituent levels allowed to be discharged. The NPDES permit is intended to assure that stormwater meets established water quality standards at the point of discharge. The Wetsel-Oviatt Lumber Company has an NPDES permit for their business operation. Stormwater discharge from the El Dorado Business Park would be minimal and there are no industrial uses that would require an NPDES permit (Nash, pers. comm. 1996). Consequently, the potential offsite to onsite contamination of through Carson Creek and its tributaries is considered to be a less-than-significant impact.

IMPACT 4.22-6: UNDERGROUND STORAGE TANKS. ALTHOUGH THE USTS PREVIOUSLY LOCATED ON THE PROJECT SITE ARE UNLIKELY TO HAVE RELEASED HAZARDOUS SUBSTANCES ON THE PROJECT SITE, A UST CURRENTLY IN USE AT THE ADJACENT WETSEL-OVIATT SITE COULD POTENTIALLY RELEASE HAZARDOUS SUBSTANCES. CONTAMINATION COULD OCCUR ONSITE IF HAZARDOUS SUBSTANCES RELEASED FROM THE WETSEL-OVIATT UST ARE CARRIED ONSITE THROUGH GROUNDWATER. THIS IMPACT WOULD BE POTENTIALLY SIGNIFICANT.

As indicated previously, two USTs were reported to have been removed from the former Euer Ranch property. These onsite tanks never appeared to have been used for fueling purposes (gasoline, etc.), there are no records to that effect; therefore, there is a potential for hazardous substances to have been stored and potentially released by these USTs. Similarly, a 12,000-gallon UST located on the Wetsel-Oviatt site failed its tightness test in 1988.

Based on information obtained regarding the former Euer Ranch Property, it is unlikely that hazardous substances were stored or released from the two onsite USTs; therefore, a significant impact related to

these USTs is not expected to occur. However, an unauthorized release of hazardous substances may have occurred from the UST on the Wetsel-Oviatt site. Due to the hydrogeology of the project area, there is a potential that hazardous substances could affect the project site, if discharge has occurred. This is considered to be a potentially significant impact.

IMPACT 4.22-7: ADJACENT RAILROAD GRADE. THE USE OF THE SOUTHERN PACIFIC RAILROAD IN THE TRANSPORT OF HAZARDOUS SUBSTANCES MAY HAVE POTENTIALLY EXPOSED THE SITE TO CONTAMINATION FROM OFFSITE SOURCES. HOWEVER, THERE IS NO RECORD THAT AN UNAUTHORIZED RELEASE OF CONTAMINATION HAS OCCURRED ALONG THE RAIL LINE NEAR THE PROJECT SITE. A LESS-THAN-SIGNIFICANT IMPACT WOULD OCCUR.

As indicated previously, a Southern Pacific Railroad line extends along the southwest portion of the project site. This rail line may have been used for the transport of hazardous substances. If, during the transport of such materials, an accident had occurred adjacent to the project, there is a potential that contamination could have migrated onsite. However, no records exist that indicate that an unauthorized release of hazardous substances has occurred along the railroad in the vicinity of the site. This impact would be considered less-than-significant.

GENERAL PLAN CONSISTENCY

IMPACT 4.22-8: GENERAL PLAN CONSISTENCY - HAZARDOUS WASTE MANAGEMENT PLAN. THE SPECIFIC PLAN WOULD NOT ALLOW FOR THE SITING OF HAZARDOUS WASTE FACILITIES ON THE PROJECT SITE. THEREFORE, NO INCONSISTENCIES WITH THE EL DORADO COUNTY HAZARDOUS WASTE MANAGEMENT PLAN HAZARDOUS WASTE FACILITY SITING REQUIREMENTS ARE ANTICIPATED, AND THE SPECIFIC PLAN WOULD BE CONSISTENT WITH THE GENERAL PLAN POLICY REGARDING THE HAZARDOUS WASTE MANAGEMENT PLAN. THIS WOULD BE CONSIDERED A LESS-THAN-SIGNIFICANT IMPACT.

General Plan Policy 6.6.1.1 provides that the El Dorado County Hazardous Waste Management Plan shall serve as the implementation program for the management of hazardous waste. The state Hazardous Waste Management Plan and Facility Siting Bill, also known as the Tanner Bill or AB 2948, authorizes California counties to prepare Hazardous Waste Management Plans (HWMP) to identify potential areas for the siting of needed future hazardous waste facilities. No hazardous waste facilities are proposed for siting in the project site under the Specific Plan. Consequently, no inconsistencies with the County's HWMP or with General Plan Policy 6.6.1.1 are anticipated. This would be considered a less-than-significant impact.

IMPACT 4.22-9: GENERAL PLAN CONSISTENCY - AGENCY LIST. THE PROJECT SITE IS NOT INCLUDED ON ANY LIST OF CONTAMINATED SITES COMPILED BY THE EL DORADO COUNTY ENVIRONMENTAL MANAGEMENT DEPARTMENT. THEREFORE, THE SPECIFIC PLAN WOULD BE

CONSISTENT WITH THE GENERAL PLAN RELATED TO AGENCY LISTS. LESS-THAN-SIGNIFICANT IMPACTS WOULD OCCUR.

General Plan Policy 6.6.1.2 provides that prior to approval of any subdivision or issuance of a building permit, a determination shall be made as to whether this site is included on a list of contaminated sites on file with the County Environmental Management Department. According to the Phase I ESA's prepared for the project site, no contaminated sites on file with the Environmental Management Department are located on the project site. Therefore, the Specific Plan is consistent with the General Plan's policy related to agency lists. Less-than-significant impacts would occur.

4.22.3 MITIGATION MEASURES

Mitigation measures are provided below to reduce significant or potentially significant risk of upset impacts of the proposed project to the extent feasible. As discussed in Section 4.1 (Introduction to Environmental Analysis), mitigation measures are numbered corresponding to the number of the impact to be mitigated.

MITIGATION MEASURE 4.22-1: WORK SHED AND BARN AREAS

If onsite contamination resulting from the storage and use of hazardous substances within the area of the work shed and barn is discovered during grading or construction, the appropriate local, state, and/or federal agencies shall be contacted. Remediation of any unauthorized release of hazardous substances shall be undertaken in accordance with all existing local, state, and federal regulations/requirements and guidelines established for the treatment of hazardous materials.

MITIGATION MEASURE 4.22-4: HISTORICAL MINING

Prior to the issuance of a grading permit, shallow groundwater and onsite drainage area shall be sampled to determine the potential presence of onsite contamination (mercury, etc.). If contamination is found, the appropriate regulatory agency shall be contacted. If deemed necessary by the appropriate regulatory agency, remediation shall be undertaken in accordance with all existing local, state, and federal regulations/requirements and guidelines established for the treatment of hazardous substances.

MITIGATION MEASURE 4.22-6: UNDERGROUND STORAGE TANKS

Prior to the issuance of a grading permit, the extent (soil and/or groundwater) of potential onsite contamination resulting from the operation of offsite USTs shall be assessed. Once the extent of contamination has been determined, the appropriate regulatory agency shall be consulted in identifying the responsible party and initiating the development of a remediation program in accordance with all applicable local, state, and federal regulations/requirements and guidelines established for the treatment of hazardous substances.

4.22.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Following implementation of mitigation measures 4.22-1, 4.22-4, and 4.22-6, impacts related to risk of upset would be reduced to less-than-significant levels.

SECTION 5
FISCAL ANALYSIS

5.1 ENVIRONMENTAL SETTING

5.1.1 INTRODUCTION AND METHODOLOGY

The following text is a discussion of the potential fiscal effects to El Dorado County and financing districts associated with the implementation of with the proposed Carson Creek Specific Plan. The discussion of fiscal impacts incorporates information contained in a fiscal analysis conducted for the proposed Specific Plan by Economic & Planning Systems, Inc. (EPS) in March 1995. A copy of this fiscal analysis is provided in Appendix G of this EIR. In general, a fiscal impact analysis compares the estimated revenues generated from a development project to the estimated cost of providing municipal services to that project.

A fiscal model for the proposed Carson Creek Specific Plan was developed based on the "Fiscal and Financial Feasibility Analysis of Draft General Plan – 2015," prepared for the County of El Dorado by Economic & Planning Systems, Inc. Generally, the County's fiscal model identifies specific revenues and expenditures which would be affected by development in El Dorado County. Forecasting methodologies were developed which use an average or modified average cost approach to estimate County expenditures. For revenues, a marginal revenue approach was used augmented by average revenue estimates. Marginal revenue forecasts were used for items such as property tax and sales tax revenues when actual revenue generation plans could be simulated. Otherwise, an average revenue approach was used to project County revenues resulting from development of the Specific Plan area. Similar methodologies were used to estimate cost and revenues for the El Dorado Hills Fire Department (Fire District) and the El Dorado Hills Community Services District (CSD), two primary financing districts that would serve the project area.

Property taxes represent the largest single source of revenue for El Dorado County and virtually the only source of revenue for the Fire District and El Dorado Hills CSD. Ultimately, the property tax allocation for the Specific Plan area will be determined based on negotiations between affected agencies. Six parcels located within the Specific Plan area require annexation into one or all of the following: the El Dorado Hills Water Fire District (commonly referred to as the Fire Department), the El Dorado Irrigation District (EID), and/or the El Dorado Hills Community Services District (CSD). Various parcels within the Specific Plan area are located within three different Tax Rate Areas (TRAs). Because information regarding a proposed property tax allocation was not available at the time of this study, the tax split used in this study is based on the percentage allocations for each agency for other TRAs served by the same set of agencies. For this fiscal analysis, the tax allocation factors below have been assumed; these are

estimates based on nearby TRAs and the results of the fiscal analysis may change if the actual percentage allocations negotiated by the affected jurisdictions are different.

Tax Allocation Factors

County General Fund	15.2%
El Dorado Hills Fire Department	14.6%
County Road Fund	2.0%
El Dorado Hills CSD	5.7%

As urban growth occurs in unincorporated areas, demand for municipal services provided by the County or financing districts increases. The County government or financing districts generally do not have an adequate revenue base for providing urban levels of service.

5.1.2 EL DORADO COUNTY

El Dorado County is having difficulty funding necessary services. In particular, the Department of Transportation (DOT) is currently underfunded by $1.3 million for road maintenance. Over the last couple of years the County has reduced its overall budget by about 30%; while some increases in cost recovery have occurred, the majority of the budget reductions have come from reduced staff and services.

The County of El Dorado's Fiscal Year 1993-1994 Budget estimates the total General Fund revenues at approximately $99 million (Economic & Planning Systems, Inc. 1995). The largest source of discretionary revenue to the County General Fund is property tax. Motor Vehicle In-Lieu fees and sales taxes are the second and third largest discretionary revenues, respectively.

The County of El Dorado's Fiscal Year 1993-1994 Budget estimates indicate the total General Fund expenditures at approximately $46 million. The largest cost item to the County is for the Public Protection (primarily judicial, sheriff, detention/probation) which accounts for approximately 56% of the County's new expenditures after deducting offsetting departmental fees, grants, and service charges (Economic & Planning Systems, Inc. 1995). General Government services are the next largest cost category at approximately 27.6% of the total net costs, followed by health and sanitation representing 11.4% of the General Fund net expenses.

Proposition 13 and Proposition 4, among other recent legislation, have constrained the ability of local government to raise and spend public revenue. State legislation now requires counties (as well as cities and special districts) to redirect a percentage of their property tax revenue to a newly created Education Revenue Augmentation Fund (ERAF). ERAF, in turn, funds school districts and allows the state to reduce its funding of school districts. The net effect is that counties have less revenue to spend on other

services. The various constraints on County revenues have led to a situation where costs are increasing at a rate greater than revenues. During recent years the County has had to make cuts or reduce service levels to maintain a balanced budget.

5.1.3 SPECIAL/FINANCING DISTRICTS

El Dorado Hills Community Services District

Like the County, the El Dorado Hills CSD is having difficulty funding necessary services. Diversion of property tax revenues into the Education Revenue Augmentation Fund (ERAF) have cost the El Dorado Hills CSD approximately 22% of its property tax base. Since fiscal year (FY) 1991-92 (the last year before ERAF), per household expenditures by the CSD have decreased by 27%. Several parcels in the Specific Plan are not part of the CSD and will require annexation and an agreement concerning the property tax allocation to the CSD and other agencies.

El Dorado Hills Water Fire District

ERAF did not affect the Fire District's property tax allocation. Compared to the CSD and the County, the Fire District begins from a stronger fiscal base.

5.2 PROJECT IMPACTS

THRESHOLDS OF SIGNIFICANCE

Considering the County's goal that new development result in a positive fiscal impact, any negative fiscal impact is considered significant.

IMPACT DISCUSSION

Ultimate fiscal impacts of the proposed project may vary substantially from those presented in this section depending upon the property tax sharing agreements to be negotiated by the affected jurisdictions. Results of this analysis are dependent upon assumptions made regarding the allocation of the 1% property tax (refer to Introduction and Methodology of this section), which are estimates only. This analysis assumes a percentage allocation similar to other TRAs served by the same agencies.

Table 5-1 indicates a summary of the revenue and expense impacts from development of the proposed Carson Creek Specific Plan at buildout in the year 2012. All dollar figures are in constant 1994 dollars. Discussions below refer to Table 5-1 data in support of impact conclusions.

> IMPACT 5-1: EL DORADO COUNTY FISCAL IMPACTS. AT BUILDOUT OF THE PROPOSED SPECIFIC PLAN, THE COUNTY IS PROJECTED TO RECEIVE GENERAL PURPOSE REVENUES OF $1,648,000, TO INCUR GENERAL PURPOSE EXPENDITURES OF $2,727,000, AND TO EXPERIENCE A RESULTING NET FISCAL DEFICIT OF $1,079,000. THIS NEGATIVE FISCAL EFFECT IS CONSIDERED A SIGNIFICANT IMPACT.

The County's revenues affected by development of the proposed project include property tax, sales and use tax, property transfer tax, licenses and other permits, and fines and forfeitures. The County of El Dorado is projected to receive $1,979,800 in constant fiscal year 1993-94 dollars, including General Fund ($1,648,133)and County Road Fund ($331,710) revenues. Property taxes and sales taxes are the two largest revenue sources to the County from development in the Specific Plan area, with property tax accounting for over 46% of total revenues and sales tax accounting for over 20% of total revenues at buildout. Motor vehicle in-lieu fees are the next largest revenue source accounting for over 18% of total revenues at buildout.

The County of El Dorado's annual service costs (operation and maintenance) affected by development of the proposed project include the cost of providing services such as sheriff protection, general government services, and health and sanitation services. The total annual cost that will be incurred annually by the County General Fund is estimated to be approximately $2.7 million in constant 1994 dollars. The cost estimated to be incurred by the County Road Fund (indicated in Table 5-1 as DOT) is approximately $138,400.

Public protection costs (approximately $1,529,300) are the largest cost item, accounting for 56% of estimated El Dorado County expenditures at buildout of the proposed project. Public protection includes judicial, sheriff, detention/probation, and inspection services. The next largest cost is for General Government services, representing approximately 25% of County expenditures.

Table 5-1 indicated the categories of general purpose revenues and general purpose expenditures that result in an overall projected deficit of approximately $1,079,000. The most significant expense categories are general government, judicial, sheriff services, and detention/protection.

TABLE 5-1
SUMMARY OF INCREMENTAL REVENUES AND EXPENDITURE
BY FUND/DISTRICT (constant $)
PROPOSED PROJECT-YEAR 2012 (Buildout)

Fund Item and Fiscal Balance	Incremental Net Fiscal Balance At Year 2012
El Dorado County General Fund Programs	
Property Tax	$769,059
Sales & Use Tax	332,194
Property Transfer Tax	51,298
Hotel/Motel Occupancy Tax	29,857
Licenses & Other Permits	72,241
Franchises	16,620
Fines and Forfeitures	70,808
Vehicle In-Lieu Fees	306,056
Total General Fund Revenues	**1,648,133**
General Fund Expenditures	
General Fund:	
General Government	708,033
Judicial	317,546
Sheriff Services	706,441
Detention/Protection	488,819
Inspection, Fish/Game, Other	16,531
Health & Sanitation	288,897
Public Assistance	146,168
Education	54,497
Total General Fund Expenditures	**2,726,932**
General Fund NET SURPLUS (DEFICIT)	**(1,078,799)**
El Dorado Hills Fire Department [1]	
Revenues	738,990
Expenditures	469,560
Fire District Net Surplus (Deficit)	**269,430**

TABLE 5-1
SUMMARY OF INCREMENTAL REVENUES AND EXPENDITURE
BY FUND/DISTRICT (constant $)
PROPOSED PROJECT-YEAR 2012 (Buildout)

Fund Item and Fiscal Balance	Incremental Net Fiscal Balance At Year 2012
County Road Fund (DOT)	
Revenues [1]	331,710
Local Road Costs	133,225
Regional Road Costs	5,192
Road Fund Net Surplus (Deficit)	**193,293**
El Dorado Hills CSD [2]	
Revenues	288,221
Expenditures	576,357
CSD Net Surplus (Deficit)	**($288,136)**

[1] Includes property tax, franchise tax revenues, and gas tax revenues.
[2] Includes property tax revenues only; these districts could receive other supplemental revenues.

Source: Economic & Planning Systems, Inc., March 1995.

IMPACT 5-2: EL DORADO COUNTY ROAD FUND. THE EL DORADO COUNTY DEPARTMENT OF TRANSPORTATION IS ANTICIPATED TO RECEIVE $331,710 IN ROAD FUND REVENUES, AND EXPEND $138,417 IN LOCAL AND REGIONAL ROAD COSTS. THIS WOULD RESULT IN A NET FISCAL SURPLUS OF $193,293. THIS POSITIVE FISCAL EFFECT ON THE ROAD FUND IS CONSIDERED A BENEFICIAL IMPACT.

As indicated on Table 5-1, the El Dorado County Department of Transportation (DOT) would receive $331,710 in Road Fund revenues, and expend $133,225 on local road costs, and $5,192 on regional road costs. This would result in a net fiscal surplus of $193,293. This positive fiscal effect on the road fund is considered a beneficial impact.

IMPACT 5-3 EL DORADO HILLS CSD FISCAL IMPACTS. AT BUILDOUT OF THE PROPOSED SPECIFIC PLAN, THE EL DORADO HILLS CSD IS PROJECTED TO EXPERIENCE A NET FISCAL DEFICIT OF $288,200. THIS NEGATIVE FISCAL EFFECT IS A SIGNIFICANT IMPACT.

The El Dorado County CSD is estimated to have a tax allocation factor of 5.7%. Based on this allocation factor, the El Dorado Hills CSD would receive approximately $288,200 in net property taxes.

The El Dorado Hills CSD will provide parks and recreation services to the project area upon approval of the annexation into the CSD. The El Dorado Hills CSD will incur annual costs of approximately $576,400 to provide these services.

The cost amounts shown in Table 5-1 are net of franchise fee revenues. The revenues shown only include property taxes.

> IMPACT 5-4 EL DORADO HILLS FIRE DEPARTMENT FISCAL IMPACTS. AT BUILDOUT OF THE PROPOSED SPECIFIC PLAN, THE FIRE DEPARTMENT IS PROJECTED TO EXPERIENCE NET FISCAL SURPLUS OF $269,000. THIS POSITIVE FISCAL EFFECT IS A BENEFICIAL IMPACT.

The El Dorado Hills Fire Department (Fire District) is estimated to receive approximately $739,000 in net property taxes based on an estimated tax allocation factor of 14.6%.

The Carson Creek Specific Plan would be served initially by an existing fire station. The Fire District has determined, however, that a new station would be needed south of U.S. Highway 50 once a substantial amount of development has occurred in the area, including additional development at the El Dorado Hills Business Park. The Fire District has, therefore, included a new station in its 10-year Master Plan to serve the Specific Plan area, and the proposed Valley View Specific Plan area, and the El Dorado Hills Business Park. Assuming operational costs are shared with these other developments, the Carson Creek Specific Plan would result in an annual operating cost of approximately $469,600 to serve the Specific Plan area.

(Considering the significant negative fiscal impacts on El Dorado County and the El Dorado Hills CSD, it may be advisable to adjust the property tax allocation for the Fire Department so as to provide the Fire Department with a neutral fiscal impact that is not significant.)

OVERVIEW OF FACTORS RESULTING IN NEGATIVE IMPACTS

The negative fiscal impacts projected for El Dorado County and the El Dorado Hills CSD are attributable to a number of factors. First, for the Carson Creek plan area, the County receives a projected net property tax allocation of 15.2%; this is significantly less than the average county-wide net allocation of 22.9%. Second, the projected home values in Carson Creek are significantly less than the average home values assumed for new development throughout El Dorado County. These two factors alone account for approximately 50% of the projected deficit. One other major reason for the deficit is that the development plan for the Carson Creek Specific Plan Area is predominantly residential. There are revenue limits imposed on the County by statute, such as Proposition 13, State-mandated entitlement programs, and recent State actions regarding property taxes. The State Budget Act for Fiscal Years

1992-93 and 1993-94 shifts significant proportions of all California cities' and counties' share of property tax revenues to augment school funding. This factor alone almost assures that most proposed residential development will be unable to "pay its own way" with respect to local government services. Although the development plan for the Project includes approximately 1.3 million square feet of non-residential development, this development will not generate enough property and sales tax revenue to offset the cost of providing services to the Plan Area.

5.3 MITIGATION MEASURES

Mitigation measures are provided below to reduce significant or potentially significant fiscal impacts of the proposed project to the extent feasible. Mitigation measures are numbered corresponding to the number of the impact to be mitigated.

It is possible that a portion of the deficit from the project area may be partially offset by future non-residential development in other parts of the County or El Dorado County CSD, which may serve as a work place for some of the residents from the project area and other residential areas in the County. However, determination of any future offset cannot be made at this time. Therefore, mitigation of the fiscal deficit from the Specific Plan area is required to avoid a dilution in County services. There are several options available to the County and other affected jurisdictions which may mitigate the projected fiscal deficits. The County may choose one mitigation measure or a combination of measures. The following list of mitigation measures are presented to provide decision makers with an understanding of the range of mitigation measures available and currently in use by other communities.

The fiscal and financial outcome for the Carson Creek Specific Plan Area will depend ultimately on the successful resolution of annexation policies and tax sharing agreements. The County needs to make every effort to negotiate the maximum percentage of the 1% property tax possible under the strictures of the law. It will be important to develop a rational and balanced approach to annexation and to avoid creating major fiscal disincentives that will reduce the level of cooperation between the affected jurisdictions.

MITIGATION MEASURE 5-1: EL DORADO COUNTY FISCAL IMPACTS

To reduce project fiscal impacts to El Dorado County, one or more of the following options shall be implemented.

a) One-Time Public Services Mitigation Fee. A public services mitigation fee could be charged to new development to offset all or a portion of the deficit identified in the fiscal impact analysis. The fee revenue should be placed in a special fund and only a set amount should be transferred to the General Fund each year, so that the fee revenue collected will be sufficient to cover County General Fund expenses for a set number of years.

b) Mello-Roos Community Facilities District for sheriff and criminal justice services. The Mello-Roos Community Facilities District Act of 1982 enables cities, counties, special district, and school districts to establish Community Facilities District (CFDs) and to levy special taxes to fund a wide variety of facilities and services. The Mello-Roos Act does allow for the funding of sheriff protection services and limited criminal justice services. However, a Mello-Roos can only be used to finance these services "to the extent that they are in addition to those provided in the territory of the district before the district was created." This reference raises the legal issue to what degree a Mello-Roos CFD can be utilized to fund sheriff services in the Carson Creek Specific Plan Area. This issue would require a legal review prior to a service Mello-Roos CFD being established.

c) Promote Fiscally Positive Land Uses within the Carson Creek Specific Plan Area. The County should promote land uses that are fiscally positive in the Carson Creek Specific Plan Area. The County could actively pursue land uses that are more revenue generating, especially commercial uses that generate sales tax revenues such as outlet stores and mail order companies.

MITIGATION MEASURE 5-3: EL DORADO HILLS CSD FISCAL IMPACTS

The El Dorado Hills CSD should consider forming a Landscaping and Lighting District to cover the cost of park maintenance in the Carson Creek Specific Plan Area. Landscaping and Lighting Districts are established through a protest proceeding and may fund park and landscape maintenance as well as capital improvements.

5.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

To relieve the financial burden on El Dorado County, mitigation measure 5-1a, 5-1b, or some combination of the two must be implemented. Mitigation measure 5-1c may be implemented in concert with the other mitigation measures, but would not alleviate the negative fiscal impact on the County to a less-than-significant level. Mitigation measure 5-3 must be implemented by the El Dorado Hills CSD to relieve the financial burden on the CSD. Implementing mitigation measures 5-1a, 5-1b, and 5-3 may reduce the negative fiscal impact on the County and the CSD to a less-than-significant level; however the level to which the negative financial impact is reduced would depend on the structure of the mitigation fee program, Mello-Roos CFD, or Landscaping and Lighting District. The structure of these mitigation measures would be determined by policy decisions made by the County and the El Dorado Hills CSD. A determination of County or CSD policy cannot be made at this time; however, if the mitigation measures discussed in Section 5.2 are implemented in such a way to relieve the financial burden on El Dorado County and the El Dorado Hills CSD, the negative fiscal impacts on these agencies would be less-than-significant.

SECTION 6
ALTERNATIVES

6.1 INTRODUCTION

State CEQA Guidelines §15126(d)(2), as amended, mandates that all EIRs include a comparative evaluation of a range of reasonable alternatives to the project or project location that would feasibly attain most of the basic project objectives. The range must include the "no project" alternative. The intent of this section of the EIR is to evaluate alternatives capable of eliminating or reducing any significant adverse impacts associated with the proposed project while meeting basic project objectives. Five alternatives are analyzed: 1) the No Project Alternative with no development occurring on the project site; 2) a Less Intensive Alternative; 3) an Alternative Use; 4) an Open Space Alternative; and 5) an Alternative Site.

CEQA §21085 provides that "[w]ith respect to a project which includes housing development, a public agency shall not, pursuant to this division, reduce the proposed number of housing units as a mitigation measure or project alternative for a particular significant effect on the environment if it determines that there is another feasible specific mitigation measure or project alternative that would provide a comparable level of mitigation." Furthermore, Government Code §65589.5 (j) prohibits agencies from reducing the density of a proposed housing project unless the project "would have a specific, adverse effect upon public health or safety" that cannot be mitigated without lowering the density. Courts have held that the Government Code §65589.5 prohibition may serve as a basis for rejecting a reduced-density housing alternative as infeasible [*see* Sequoyah Hills Homeowners Association v. City of Oakland (1st Dist. 1993) 23 Cal.App.4th 704].

With regard to the proposed project, this section provides an analysis of two alternatives that would reduce residential density: the Less Intensive Alternative and the Alternative Use. The feasibility of such alternatives would be assessed by the County in rendering its ultimate decision regarding the approval or denial of the project.

The discussion below focuses on substantial changes in project impacts anticipated with the alternatives in comparison with the applicant's proposed project. The comparison of impacts is made before consideration of project-specific mitigation measures. Areas not anticipated to change substantially are not discussed in detail. At the conclusion of each alternative, a discussion of the advantages and disadvantages of the alternative is presented. Finally, this section concludes by identifying the environmentally superior alternative, as mandated by State CEQA Guidelines §15126(d)(2).

6.2 NO PROJECT ALTERNATIVE

6.2.1 DESCRIPTION

The No Project Alternative assumes that no development would occur onsite. The project would not be approved and the site would remain undeveloped.

6.2.2 IMPACTS

With the No Project Alternative, the existing environmental setting would remain unchanged. Project impacts as evaluated throughout Section 4 of this EIR would not occur. Cumulative impacts, as presented in Section 7.2 of this EIR would also not occur. The potential fiscal effects, described in Section 5 of the EIR would not result. Conversely, beneficial impacts, such as the generation of employment sources and the potential construction of affordable housing units, would not occur under the No Project Alternative.

6.2.3 CONCLUSION

The No Project Alternative would be the environmentally superior alternative based on the avoidance of environmental changes; this is the primary advantage of this alternative. However, this alternative would not meet many of the project objectives, as listed in Section 3.4 of this EIR. Most notably, this alternative would not meet project objectives related to the creation of affordable housing and the provision for mixed uses, including employment-generating business park, industrial, and commercial uses; these are considered disadvantages of this alternative.

6.3 LESS INTENSIVE ALTERNATIVE

6.3.1 DESCRIPTION

The Less Intensive Alternative would include single-family residential development in place of proposed multi-family designations in the proposed Specific Plan area and would incorporate greater setbacks from the onsite creek corridors. The maximum residential density would be 8 dwelling units per acre (du/ac). Accordingly, residential areas R(13), R(19), and R(20) would be reduced from a maximum residential density of 20 du/ac to 8 du/ac under this alternative. Proposed commercial, research and development, park, open space, and school uses would remain as designated in the proposed project.

In identifying project alternatives, the primary consideration is attempting to reduce significant project impacts. The Less Intensive Alternative is anticipated to reduce significant project impacts related to aesthetics, traffic, air quality, noise, biological resources, schools, parks, water supply, and fireflow. Implementation of the Less Intensive Alternative would not result in substantially different impacts in the areas of land use, earth resources, hydrology and water quality, cultural resources, risk of upset, and other public services and utilities. The remainder of the impact areas discussed in Section 4 of this EIR are discussed briefly below with respect to the Less Intensive Alternative.

6.3.2 IMPACTS

AESTHETICS

Significant (unmitigated) visual impacts of the proposed project along White Rock Road at Manchester Lane, the County line, and from Golden Foothills Parkway would be reduced with this alternative. Wider creek setbacks proposed under this alternative would allow greater visual access of the site and onsite creek features from roadways. However, due to the amount of anticipated development, this alternative would not reduce significant aesthetics impacts to a less-than-significant level, which is a similar consequence as for the proposed project.

POPULATION, EMPLOYMENT, AND HOUSING

This alternative would provide for approximately 190 fewer dwelling units than the proposed Specific Plan. Accordingly, approximately 530 (7%) fewer residents would occupy the site under this alternative. Because proposed commercial and research and development uses would not change under this alternative, employment generation associated with the Less Intensive Alternative is projected to be similar to that associated with the proposed project. Because fewer residents would occupy the project site at buildout but employment would be unchanged, a slightly higher jobs-to-housing ratio would occur with this alternative, as compared to the proposed project.

TRAFFIC AND CIRCULATION

At buildout, this alternative would generate an estimated 800 fewer daily trips than the proposed project. This would represent an approximately 2% reduction in total daily trips over the proposed Specific Plan. Significant average daily and peak-hour traffic impacts (unmitigated) associated with the proposed project would be somewhat reduced under this alternative, but not substantially. Significant but mitigatable traffic impacts would result with this alternative, as with the proposed project.

AIR QUALITY

As discussed above, vehicle trips to and from the project site would be reduced by approximately 2% with this alternative, resulting in a corresponding decrease in mobile source emissions. However, regional mobile source emissions associated with the Less Intensive Alternative would remain significant, as the project site is located in a non-attainment area for state and federal O_3 and state PM_{10} standards. Construction-related fugitive dust and equipment exhaust emissions would be similar to the proposed project. Long-term stationary source emissions resulting from energy consumption and residential fireplace usage would be reduced under this alternative, but not to a less-than-significant level. Significant and unavoidable air quality impacts would remain with this alternative.

NOISE

Traffic noise levels under the Less Intensive Alternative would decrease slightly from levels associated with the proposed project at buildout. However, significant traffic noise impacts (unmitigated) associated with the proposed project would remain significant under this alternative. Similarly, stationary source noise impacts would not differ substantially from the proposed project under this alternative. Both proposed project and Less Intensive Alternative noise effects could be mitigated to a less-than-significant level.

BIOLOGICAL RESOURCES

Implementation of the Less Intensive Alternative would result in greater setbacks around the onsite creek corridors. This would allow more opportunity to avoid the potential loss of Euer Ranch wetlands associated with the proposed project. Impacts to wildlife movement and special-status plants and wildlife would be similar to those associated with the proposed project. Impact to biological resources for the proposed project and this alternative could be mitigated to a less-than-significant level.

SCHOOLS

The Less Intensive Alternative would result in the generation of an estimated 95 fewer elementary school students, 25 fewer middle school students and 40 fewer high school students than the proposed project. Since available school facilities may not be sufficient to serve demand, implementation of this alternative would reduce significant school impacts (unmitigated) associated with the proposed project somewhat, but not to a less-than-significant level.

PUBLIC SERVICES AND UTILITIES

Implementation of this alternative would generate approximately 530 fewer residents than the proposed project. Consequently, significant impacts regarding law enforcement, parks and recreation, water consumption, and fireflow would be slightly reduced with the alternative since development would occur at a less intensive level. However, significant and unavoidable project impacts associated with water services and fireflow would remain under this alternative. Project impacts to other public services and utilities were found to be less than significant, as they would be with this alternative.

6.3.3 CONCLUSION

Advantages associated with the Less Intensive Alternative are that it would slightly reduce the level of significant impacts anticipated with the proposed project. Significant project impacts related to traffic, air quality, noise, and public services and utilities would be reduced in proportion to the lesser population growth associated with this alternative, but not to less-than-significant levels. Significant biological resources and aesthetics impacts associated with the proposed project would also be reduced, but not to a less-than-significant level, by the greater creek setbacks associated with this alternative. Therefore, this alternative would be environmentally superior to the proposed project. However, the significant and unavoidable impacts associated with the proposed project (i.e., aesthetics, air quality, and water service) would also occur with this alternative.

The primary disadvantage of the Less Intensive Alternative is that it would less effectively meet the project objective related to the provision of affordable housing than the proposed project.

6.4 ALTERNATIVE USE

6.4.1 DESCRIPTION

Under this alternative, the project would be developed with a 130-acre golf course and 1-acre estate residential on the (±)160-acre Euer Ranch portion of the site. Residential units R(1), R(2), R(4), R(5), R(7), R(8) and R(9), would be developed into 1-acre estate lots. The southern site area would be developed in residential, research and development, local commercial, park, and open space uses. However, in the southern areas single family residential units at up to 5 du/ac would be developed except in residential units R(13), R(19), and R(20) where up to 8 du/ac would be permitted. This would result in an overall reduction of approximately 1,250 residential units, and a gain of approximately 130 acres of designated open space. The golf course would integrate Carson Creek and its tributaries where possible.

The Alternative Use was selected based on its ability to reduce aesthetics, traffic, air quality, noise, wetlands, earth resources, hydrology and water quality, cultural resources, schools, water supply, fireflow and other impacts. Implementation of the Alternative Use on the project site would not result in substantially different impacts related to risk of upset. The remainder of the impact areas discussed in Section 4 of this EIR are discussed briefly below with respect to the Alternative Use.

6.4.2 IMPACTS

LAND USE

This alternative would, as with the proposed project, result in less-than-significant impacts in terms of land use compatibility, but would be more compatible with Springfield Meadows in terms of project intensity along the northern project boundary. General Plan inconsistencies related to annexations would be the same with this alternative as with the proposed project.

AESTHETICS

Visual impacts from locations along White Rock Road and Golden Foothills Parkway would be reduced with this alternative, since larger lots would retain a higher proportion of open space, allowing greater opportunities to view undeveloped land. The significant and unavoidable aesthetic impacts of the project at White Rock Road at Manchester Lane and to some extent at White Rock Road at El Dorado/Sacramento County line would be substantially reduced with this alternative, because the intensity of development at the northern project boundary would be similar to Springfield Meadows, and more rural or open views would be achieved.

POPULATION, EMPLOYMENT, AND HOUSING

The proposed project does not result in significant impacts to population, housing, and employment. The alternative would result in approximately 3,500 fewer residents (based on 2.8 persons per household), and 1,250 fewer dwelling units. Employment generation, dominated by proposed business park uses, would not be noticeably altered with this alternative. Since substantially fewer residents would live in the project area and employment opportunities would remain unchanged, this alternative would result in a greater improvement in the County's jobs-to-employed-residents ratio than the proposed project.

TRAFFIC AND CIRCULATION

At buildout this alternative would generate an estimated 11,000 fewer daily trips than the proposed project. This represents an approximately 25% reduction in daily trips over the proposed project.

Significant (unmitigated) daily traffic volume impacts along Latrobe Road between U.S. Highway 50 and White Rock Road would be reduced under this alternative, and would be expected to be reduced to a less-than-significant level should sufficient mitigation fees be collected, similar to the proposed project. Significant peak-hour traffic impacts at the U.S. Highway 50 interchanges, Latrobe Road intersections, and White Rock Road intersections would also be reduced to less-than-significant levels with mitigation, similar to impacts associated with the proposed project.

AIR QUALITY

Air quality impacts associated with grading, facilities construction, stationary source, and mobile source emissions would all be reduced with this alternative. However, impacts associated with to construction-related, long-term stationary source, and regional mobile source emissions would remain significant and unavoidable, as they would with the proposed project.

NOISE

Short-term construction noise and long-term traffic noise impacts could be significant with this alternative, as with the proposed project, due to the expected continuation of development (until buildout) in areas where residences would be occupied. However, since larger lots and golf course uses would be developed in northern areas, a greater distance would occur between sensitive receptors and noise sources in these areas. This alternative could result in somewhat fewer short-term noise impacts from those of the proposed project although the extent of which cannot be determined.

BIOLOGICAL RESOURCES

Wetland and associated special-status plants impacts would be the same with this alternative as with the proposed project on the southern "Carson Creek" portion of the site. The wetlands delineation and approved mitigation plan would still apply. However, on the northern Euer Ranch portion, avoidance of wetlands may be easier than with the proposed project. Delineated wetlands on the Euer Ranch are located primarily along the tributaries to Carson Creek where golf course uses would occur. Furthermore, 1-acre lots would dominate developed areas in the north, leaving a greater proportion of the site undeveloped.

EARTH RESOURCES

Some of the potential project impacts to earth resources would not be substantially reduced with the alternative use scenario. The risk of ground rupture, ground shaking, and topographic alteration would be generally equivalent between the alternative, and the proposed project although a smaller resident

population would be at risk. Potential impacts related to liquefaction, differential compaction/seismic settlement, and collapsible and expansive soils may, however, be somewhat reduced with the alternative, as it would provide for golf course uses in creek areas where these risks are highest. Project and Alternative Use earth resources impacts can be mitigated to a less-than-significant level.

HYDROLOGY AND WATER QUALITY

Potential hydrology impacts would be somewhat reduced with this alternative, since a smaller land area would be converted to impervious surfaces. Potential damage from 100-year flood events may also be reduced due to greater distance between urban development and creek areas in the north. Water quality impacts may, however, be increased since the golf course would rely upon use of pesticides and fertilizers that could be carried into creek areas. Conversely, urban pollutants would generally be located at a greater distance from the creek and its tributaries, allowing for natural removal of pollutants through percolation.

CULTURAL RESOURCES

Potential cultural resources impacts could be reduced with the Alternative Use scenario although it is speculative to determine by how much. On the one hand, grading and recontouring for the golf course in proximity to the creek (estimated to represent higher sensitivity areas) could result in greater damage to possible buried cultural resources. On the other hand, since urban development would be less intensive, fewer opportunities to damage possible buried cultural resources would occur under this alternative.

SCHOOLS

Student generation would be less with this alternative than with the proposed project. However, since the Latrobe School District is so limited in available capacity and facilities, both the alternative and the proposed project would result in significant impacts until the Carson Creek elementary school became available. The alternative, like the proposed project, would significantly impact the El Dorado Union High School District since it is currently operating at over-capacity levels. However, the alternative, with fewer homes, would generate less high school students thereby somewhat reducing this impact.

PUBLIC SERVICES AND UTILITIES

Significant project impacts in the areas of law enforcement, parks and recreation, water consumption, and fireflow would be somewhat reduced with the alternative since development would occur at a less intensive level. However, the golf course would be a water intensive use which may not be substantially

less than urban development. Similar to the proposed project, water supply problems would remain a significant and unavoidable impact of this alternative until additional water services, or treated wastewater supplies are found. Other public services and utilities are not significantly impacted by the proposed project and would not be substantially altered with this alternative.

6.4.3 CONCLUSION

Advantages of the Alternative Use scenario over the proposed projects include the potential reduction of significant or potentially significant project impacts to aesthetics, traffic, air quality, noise, biological resources, earth resources, hydrology, schools, and public services and utilities. The Alternative Use would be environmentally superior to the proposed project. However, this alternative would not reduce any significant and unavoidable project impacts regarding air quality, and water service and possibly, aesthetics, to a less-than-significant level.

A disadvantage of this alternative is that it would not be as effective as the proposed project in meeting the project objective related to the provision of affordable housing, and it could create water quality impacts associated with golf course use of landscaping and maintenance pesticides, fertilizers, and/or herbicides.

6.5 OPEN SPACE ALTERNATIVE

6.5.1 DESCRIPTION

Under the Open Space Alternative, the project site would be developed with the same residential potential (2,701 units) as the proposed project, but local commercial (LC) uses would be absorbed into adjacent residential or park uses and research and development (RD) uses would be designated open space. Accordingly, permitted residential densities in residential areas R(4), R(12), and R(20) would be reduced, because adjacent LC-designated lands would be designated residential and incorporated within R(4), R(12), R(20) and the number of residential units permitted in residential areas R(4), R(12), and R(20) would not increase. Overall, residential acreage would increase from 470.4 acres under the proposed project to approximately 480 acres under the Open Space Alternative. The LC-designated portion adjacent to the proposed 19.1-acre regional park would be added to the regional park. RD-designated areas along the southeastern border of the project site would be designated as open space under this alternative, resulting in a gain of 48.4 acres of open space.

The Open Space Alternative was selected based on its ability to reduce aesthetics, traffic, and air quality impacts without reducing the permitted number of residential units. Implementation of the Open Space

Alternative would not result in substantially different impacts related to public services and utilities, because the resultant population growth and associated demand for public services and utilities would be similar to the proposed project. The remainder of the impact areas discussed in Section 4 of this EIR are discussed briefly below with respect to the Open Space Alternative.

6.5.2 IMPACTS

LAND USE

Similar to the proposed project, the Open Space Alternative would result in less-than-significant impacts related to land use compatibility. Under this alternative, the retention of open space along the southeastern border of the project site would buffer proposed residential uses from offsite business park uses. General Plan inconsistencies related to required special district annexations under the proposed project would also occur under this alternative.

AESTHETICS

Under this alternative, visual impacts from locations along White Rock Road would be similar to those associated with the proposed project, except that the LC-designated portion along the roadway would be residential in character with development under this alternative. Visual impacts from Golden Foothills Parkway would be reduced somewhat under the Open Space Alternative, because RD-designated areas would be retained as open space under this alternative. Overall, aesthetic impacts of the Open Space Alternative would be slightly reduced over those of the proposed project.

POPULATION, EMPLOYMENT, AND HOUSING

The proposed project would not result in significant impacts to population, employment, and housing. The Open Space Alternative would generate similar population as the proposed project at buildout, because the permitted number of residential units would not change. Although the number of residential units would not change from the proposed project, housing may be less affordable under this alternative, because residential density in areas R(4), R(12), and R(20) would be reduced with incorporation of LC-designated land into these residential areas. This alternative would not generate long-term employment opportunities, because no employment-generating commercial and research and development uses are proposed. Consequently, this alternative could exacerbate the existing jobs-to-housing ratio (housing-rich/jobs-poor) in western El Dorado County.

TRAFFIC AND CIRCULATION

The Open Space Alternative would generate an estimated 19,000 fewer daily trips than the proposed project at buildout. This represents roughly a 40% reduction in daily trips over the proposed project. Significant (unmitigated) daily traffic volume impacts along Latrobe Road between U.S. Highway 50 and White Rock Road would be reduced under this alternative, but not to a less-than-significant level. Significant (unmitigated) peak-hour traffic impacts at the U.S. Highway 50 interchanges, Latrobe Road intersections, and White Rock Road intersections would also be reduced over those of the proposed project, and possibly to less-than-significant levels at some intersections.

AIR QUALITY

Air quality impacts associated with grading, facilities construction, stationary source, and mobile source emissions would all be reduced with the Open Space Alternative. However, impacts associated with to construction-related, long-term stationary source, and regional mobile source emissions would remain significant and unavoidable, as they would with the proposed project.

NOISE

Under the Open Space Alternative, short-term construction noise and long-term traffic noise impacts could be significant (unmitigated), as with the proposed project, due to the expected continuation of development (until buildout) in areas where residences would be occupied. However, since less construction would occur in southeastern areas of the project site, a greater distance would occur between sensitive receptors and noise sources in these areas. This alternative could result in slightly reduced traffic noise impacts from those of the proposed project, because of the reduced trip generation associated with this alternative.

BIOLOGICAL RESOURCES

Wetland and associated special-status plants impacts, the only significant project-related biological resources impacts without mitigation, would be the similar with this alternative as with the proposed project. However, open space would be retained as a buffer along the southeastern boundary of the project site, leaving a greater proportion of the site in its current state.

EARTH RESOURCES

Some of the potential project impacts to earth resources would not be substantially reduced with the Open Space Alternative scenario. Under this alternative, the potentially significant project impacts related to

liquefaction, differential compaction/seismic settlement, ground rupture, ground shaking, topographic alteration and collapsible and expansive soils would remain significant without mitigation. However, the risk associated with ground rupture, ground shaking, and topographic alteration would be reduced somewhat with the retention of additional open space. Less-than-significant project impacts related to landslides, seiches, subsidence, and mineral resources would also be less-than-significant under the Open Space Alternative.

HYDROLOGY AND WATER QUALITY

Potential hydrology impacts would be somewhat reduced with this alternative, because 48.4 acres, in addition to the 142.8 acres designated under the proposed project, would be retained as open space and not converted to impervious surfaces. Potential damage from 100-year flood events would be similar to the proposed project, however, because setbacks from creek corridors would not change. Water quality impacts may be decreased with the absence of commercial and research and development uses.

CULTURAL RESOURCES

Cultural resource impacts of the Open Space Alternative would generally be similar to the proposed project. However, the potential for uncovering possibly significant unrecorded cultural resources would be reduced in proportion to the increased open space acreage under this alternative.

PARKS, RECREATION, AND COMMUNITY SERVICES

Under this alternative, demand for parks and recreation facilities, like other public services and utilities, would be similar to that associated with the proposed project, because population generation would not change. However, the Open Space Alternative would provide for an approximately 3-acre increase in park acreage designation, because the regional park would incorporate the adjacent LC-designated portion south of the southernmost access road. This alternative would also provide for an additional 48.4 acres of designated open space.

RISK OF UPSET

Risk of upset impacts associated with the onsite handling and storage of hazardous materials would be diminished slightly in proportion to the elimination of LC and RD designations under this alternative. All other risk of upset impacts are anticipated to be similar to those associated with the proposed project, because proposed land uses do not differ substantially and because the locations of potential hazards and sources of exposure pathways would not change.

6.5.3 CONCLUSIONS

Advantages associated with the Open Space Alternative include reductions in significant project impacts to aesthetics, traffic, air quality, noise, biological resources, earth resources, hydrology and water quality, parks and recreation, and risk of upset. The significance of these impacts, with the possible exception of LOS improvements at some intersections, would not change from project levels. This alternative would not reduce any significant and unavoidable project impacts (i.e., aesthetics, air quality, and water service) to less-than-significant levels. The alternative would, however, leave a greater amount of open space along the southeastern project boundary than the proposed project. The Open Space Alternative would be environmentally superior to the proposed project.

Disadvantages associated with this alternative relate primarily to reduced employment generation. Positive project impacts related to employment generation would not occur under this alternative. Furthermore, this alternative would not meet project objectives related to the provision of shopping opportunities and a balanced mix of land uses.

6.6 ALTERNATIVE SITE

6.6.1 DESCRIPTION

Under the Alternative Site scenario, the proposed project would be developed with the current land plan, but would be located immediately adjacent to and south of U.S. Highway 50 between the Bass Lake Road and Cambridge Road interchanges in western El Dorado County. Access to the site would be provided via Marble Valley Road and the Bass Lake Road interchange. The Alternative Site is currently used for livestock grazing. It is traversed by Marble Creek. Similar to the proposed project, the creek corridor would be reserved for open space and use as a linear trail. The existing Deer Creek Wastewater Treatment Plant (DCWTP) is located southeast of the Alternative Site along Deer Creek Road.

In identifying project alternatives, the primary consideration was the probability that implementation of the alternative would reduce significant project impacts. The Alternative Site was selected based on its ability to reduce site specific impacts. Development of the proposed project on the Alternative Site would generate similar population growth and would be served by the same public services and utilities providers; therefore, impacts on socioeconomics and public services and utilities would not differ substantially from those associated with development on the proposed project site. The remainder of the impact areas discussed in Section 4 of this EIR are discussed briefly below with respect to the Less Intensive Alternative.

6.6.2 IMPACTS

LAND USE

The Alternative Site is currently designated as Low Density Residential (LDR) in the El Dorado County General Plan. The proposed residential densities would be inconsistent with the General Plan designation, requiring a General Plan amendment. Implementation of the proposed project on the Alternative Site would also require the rezoning of the site from Mineral Resource District and Residential Estate 10-acre minimum to Planned Community. Similar to the proposed project site, development of the Alternative Site would convert the site from predominantly open space and vacant uses to urban development. The Alternative Site and surrounding areas to the west, south, and east are designated as LDR under the El Dorado County General Plan. Development of the site would result in a potential incompatibility with surrounding low-density uses, depending particularly on "edge" features incorporated into the Alternative Site project. The area immediately to the north of the Alternative Site, however, is designated High Density Residential (HDR) under the General Plan and would not be inconsistent with proposed development on the Alternative Site. Similar to the proposed project site, development of the Alternative Site would require annexation into various utility service or special districts. Until such annexation occurs, this alternative, like the proposed project site, would be inconsistent with General Plan Objective 2.1.4.

AESTHETICS

Development of the Alternative Site would result in slightly reduced visual impacts from local roadways, because of the reduced project frontage on local roadways as compared to the proposed project's frontage on White Rock Road. However, buildout of the Alternative Site could result in the development of hillsides visible from U.S. Highway 50, resulting in a new significant visual impact that would not result with the project. Overall, aesthetics impacts associated with this alternative would be a different nature than, but of a similar magnitude to, those associated with the proposed project.

TRAFFIC AND CIRCULATION

Buildout of the proposed project land use plan on the Alternative Site would generate similar traffic volumes as the proposed project. Marble Valley Road, which would traverse the northern portions of the Alternative Site, would provide local access to the site. Regional access would be provided by the Bass Lake Road interchange. Given the Alternative Site's proximity to U.S. Highway 50, impacts to local offsite roadways would be less than associated with the proposed project site. However, development of the proposed project on the Alternative Site would contribute to cumulative levels of service that exceed County standards at the Bass Lake Road interchange. Furthermore, no existing

railroad lines are located in the vicinity of the Alternative Site and, therefore, commuter rail service would be less opportune under this alternative.

AIR QUALITY

Development of the proposed project on the Alternative Site would generate similar amounts of construction-related emissions as the proposed project site, because the land use acreages would not change with this alternative. As discussed above, traffic generation would also be similar to the proposed project, and comparable mobile source impacts are anticipated. Long-term stationary source emissions would also be similar to the proposed project. Odor impacts from the existing DCWTP would not be anticipated to substantially affect the Alternative Site. Therefore, air quality impacts of this alternative would, like the proposed project, be significant and unavoidable relative to short-term construction, long-term stationary source, and mobile source emissions.

NOISE

Traffic noise impacts on local roadways would be less than associated with the proposed project site, given the proximity of the Alternative Site to U.S. Highway 50. However, development of the Alternative Site would result in the potential for residential uses to be located within the 60 dBA CNEL noise contour along U.S. Highway 50. Noise impacts from proposed onsite and offsite stationary sources would be less than those associated with the proposed project site, because the Alternative Site would not be located adjacent to proposed business park and industrial uses and the undulating topography of the Alternative Site would provide increased noise attenuation.

BIOLOGICAL RESOURCES

Similar to the proposed project, open space buffers are proposed along onsite creek corridors. Development of the Alternative Site could result in the destruction or removal of elderberry bushes, which are potential habitat for endangered elderberry longhorn beetles. No rare, threatened, or endangered species of plants would likely be affected by development of the Alternative Site. However, because the Alternative Site contains scattered stands of oaks, digger pine, and ponderosa pine, potentially greater impacts to wildlife would occur with development of the Alternative Site than the proposed project site.

EARTH RESOURCES

The Alternative Site has steeper slopes relative to the proposed project site. Development on such slopes and associated soil disturbances could result in erosion and sedimentation. Potential seismic impacts

would be similar to those associated with the proposed project site, because of the Alternative Site's proximity to the Western Branch of the Bear Mountains Fault Zone. Potentially unstable alluvial soils could be present on the Alternative Site under the Marble Creek channel; therefore, related impacts would be similar to the proposed project site. Overall, impacts to earth resources under this alternative would be similar to the proposed project.

HYDROLOGY AND WATER QUALITY

Development of the proposed project on the Alternative Site would result in increased runoff into Marble Creek and Deer Creek. Urban runoff into these creeks could affect water quality. Because the amount of impermeable surface under this alternative would be similar to the proposed project, surface runoff impacts would be similar to the proposed project. Because similar flood control measures would be incorporated on the Alternative Site, flooding impacts would likely be similar to the proposed project site. Other hydrology and water quality impacts would also be similar to the proposed project.

CULTURAL RESOURCES

Important prehistoric and historic sites have been identified on the alternative site. Since these sites have been identified, this alternative could result in similar, or greater, cultural resources impacts than associated with the proposed project. It is also possible, however, that since the full extent of cultural resources on the Alternative Site is unknown, fewer impacts could occur under this alternative than with the proposed project.

SCHOOLS

The Alternative Site would be served by the Buckeye Union School District and the El Dorado Union High School District. Development of the proposed project on the Alternative Site would generate similar numbers of students as the proposed project. The Buckeye Union School District has greater available capacity for elementary school students than the Latrobe School District, which may result in a reduction of significant elementary school impacts in the initial development phases. At buildout of this alternative, however, school impacts to the respective school districts would be similar to those associated with the proposed project.

RISK OF UPSET

Unstable material adjacent to an abandoned onsite quarry has been identified on the Alternative Site. Toxic materials have also been identified on the site and have been the subject of cleanup operations under the oversight of the El Dorado County Department of Environmental Management.

6.6.3 CONCLUSION

Development of the proposed project on the Alternative Site could potentially result in reduced impacts to traffic and noise; these would be considered potential advantages of this alternative. However, this alternative could potentially result in greater impacts to cultural resources and risk of upset, which would be considered disadvantages. Furthermore, new significant impacts regarding land use compatibility, aesthetics, lack of rail service, noise, and wildlife may result with this alternative that would not occur with the proposed project. Overall, this alternative would not be considered environmentally superior to the proposed project.

6.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The No Project Alternative would be the environmentally superior alternative, because it would result in no changes to the existing conditions and would, therefore, avoid significant, and significant and unavoidable impacts associated with the proposed project. Similarly, less-than-significant impacts associated with the proposed project would not occur under the No Project Alternative. However, the No Project Alternative would not accomplish any of the project objectives, as presented in Section 3.4 of this EIR.

Other than the No Project Alternative, the Alternative Use would be the environmentally superior alternative. Implementation of the Alternative Use scenario would result in reduced, but still significant, project impacts to aesthetics, traffic, air quality, noise, biological resources, earth resources, hydrology, schools, and public services and utilities. However, significant and unavoidable project impacts to air quality and water service, and possibly aesthetics, would remain significant despite impact reduction. The Alternative Use scenario would be less effective at meeting project objectives related to the provision of affordable housing, because it would provide substantially fewer opportunities for affordable housing than the proposed project and it could create water quality impacts associated with use of pesticides, herbicides, and fertilizers, which are commonly used in golf course landscaping and maintenance. Furthermore, this alternative may prove to be legally infeasible in light of the statutory prohibitions on reducing the number of dwelling units as identified in an alternative for proposed residential projects.

SECTION 7
OTHER CEQA-REQUIRED SECTIONS

7.1 GROWTH INDUCEMENT

The California Environmental Quality Act (CEQA) §21100(a)(5) requires that the growth-inducing impacts of a project be addressed in the environmental impact report. A proposed project may result in direct and/or indirect growth-inducing impacts. To assess the potential for such impacts, project characteristics must be evaluated for their potential to facilitate activities which may individually or cumulatively affect the environment.

Direct growth-inducing impacts result when the development associated with a project directly induces population growth or the construction of additional developments within the same geographic area. These impacts may impose burdens on a community or encourage new local development, thereby triggering subsequent growth-related impacts. The analysis of potential growth-inducing impacts includes a determination of whether a project would remove physical obstacles to population growth. This often occurs with the extension of infrastructure facilities that can provide services to new development. Indirect growth-inducing impacts result from projects that serve as catalysts for future unrelated development in an area. Development of public institutions, such as colleges, and the introduction of employment opportunities within an area are examples of projects that may result in indirect growth-inducing impacts.

Implementation of the proposed Specific Plan would facilitate the development of 710 acres of agricultural and open space land in El Dorado County. The development would consist of up to 2,701 single- and multi-family housing units, approximately 240,000 square feet of commercial uses, approximately 843,000 square feet of research and development uses, up to two schools, 31.2 acres of active parkland, and 142.8 acres of open space.

In preparation for development, the Specific Plan includes provisions to extend and improve infrastructure facilities within the Specific Plan area, including the extension of energy and communication lines, the extension of water and wastewater infrastructure, and the construction of new roadways. Because these alterations would serve to remove physical obstacles to growth within and adjacent to the Specific Plan area, direct growth-inducing impacts would occur.

The Specific Plan would facilitate the development of local commercial and research and development areas. As discussed in Section 4.4, Population, Employment, and Housing, these land uses could result in approximately 4,000 new employment positions. These jobs would be available in addition to employment uses, of similar nature, that are available or are developing, in the El Dorado Hills Business

Park. Since employment opportunities are, or will be, available in the immediate area, the specific plan growth-inducement associated with jobs is an additive, but not exclusive effect.

The project will have water available for 300 equivalent dwelling units (EDUs) in the early development stages. However, additional water resources must be secured for the remaining EDUs in the project area (please refer to Section 4.18 for further discussion). Should a new water source be secured for development in excess of the project, that would be a project-related growth-inducing effect.

The elementary and potential middle schools are expected to serve, primarily, project-generated students. However, sufficient capacity may also be available for non-project related students in the general area. Since, however, schools are constructed in response to needs or to accommodate planned student loads, the schools would not be considered growth-inducing.

7.2 CUMULATIVE IMPACTS

7.2.1 INTRODUCTION

Cumulative impacts are defined in the State CEQA Guidelines §15355 as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." A cumulative impact occurs from "the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (§15335[b]).

State CEQA Guidelines §15130(b)(1) provides that a discussion of cumulative impacts requires either: 1) a "list of past, present, and reasonably anticipated future projects producing related or cumulative impacts . . ." or 2) a "summary of projections contained in an adopted general plan or related planning document which is designed to evaluate regional or areawide conditions." Although only one of the two methods of analysis are required by the State CEQA Guidelines, the cumulative impact analysis in this EIR will focus on future projects or El Dorado County General Plan projections, depending on the environmental issue being evaluated.

7.2.2 CUMULATIVE SETTING

EL DORADO COUNTY GENERAL PLAN PROJECTIONS

As discussed in Section 3.2 (Project History) of this EIR, El Dorado County adopted its General Plan in January 1996. The General Plan provides future land use projections in the County. Based on the

be regarded as a significant effect of the project. Alternatively, economic and social effects of a physical change may be used to determine that the physical change has a significant effect on the environment. Accordingly, the impacts of projected changes in population, employment, and housing are considered in analyzing cumulative impacts in the other areas considered in this section. Cumulative population, employment, and housing increases would not be considered significant in and of themselves.

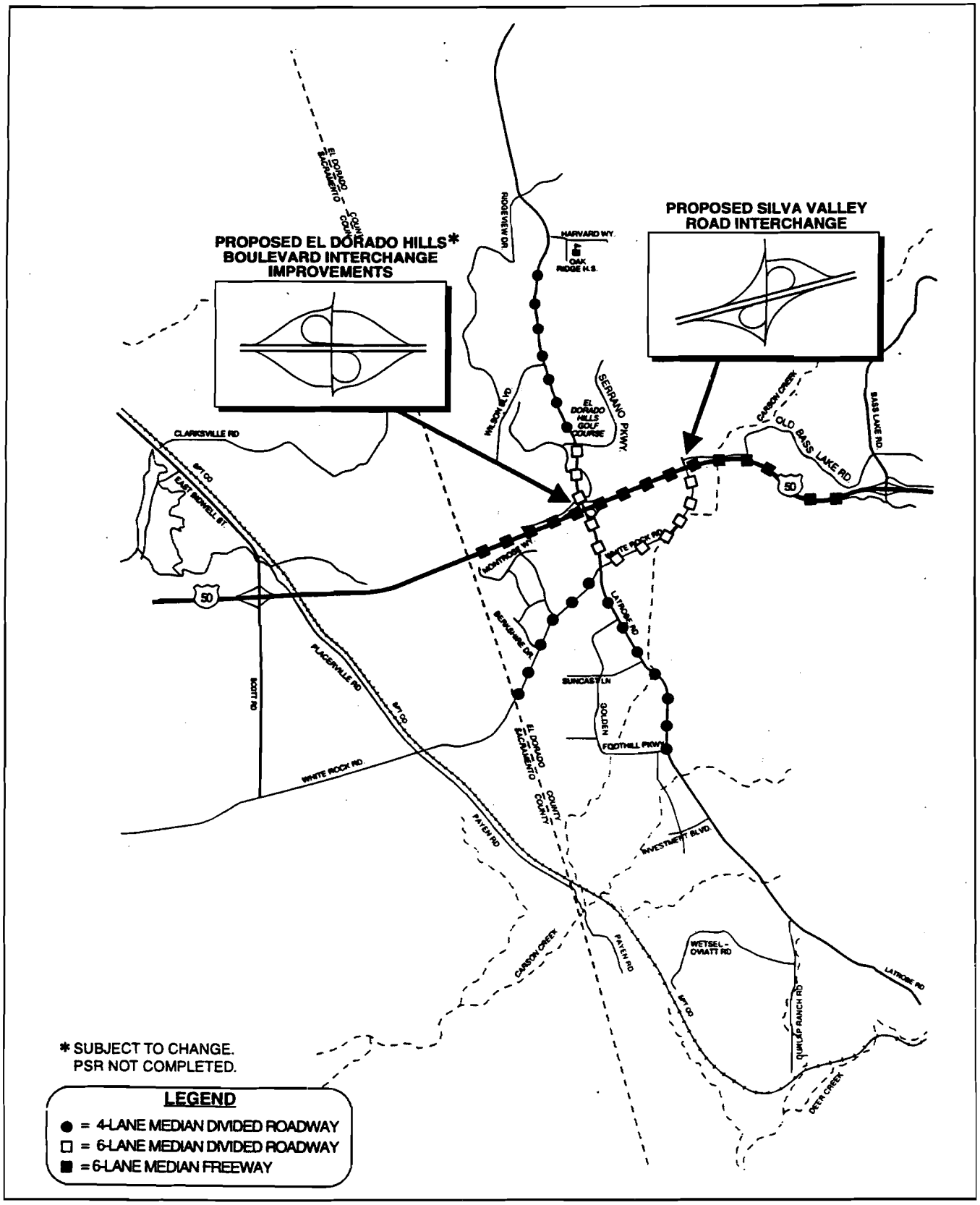
TRANSPORTATION AND CIRCULATION

Roadway System Cumulative Impacts

The cumulative analysis determines if planned roadway improvements in the study area are sufficient to accommodate expected traffic levels by 2015. The planned roadway improvements in the vicinity of the proposed project and reasonably foreseeable projects in the area are shown on Exhibit 7-1. The following improvements in Exhibit 7-1 are already included in the El Dorado Hills Road Improvement Fund (RIF):

- Widening Latrobe Road from White Rock Road to the U.S. Highway 50 eastbound ramps to six lanes with a median;
- Widening Latrobe Road from Golden Foothill Parkway South to White Rock Road to four lanes with a median;
- Widening White Rock Road from Latrobe Road to the proposed Silva Valley Road interchange to six lanes with a median;
- Widening White Rock Road from Latrobe Road to the County Line from two to four lanes with a median;
- Reconstructing the El Dorado Hills Boulevard interchange; and
- Constructing a new interchange at Silva Valley Road.

In addition to providing for funding of these improvements, the County is collecting a development impact fee that will be applied to the widening of U.S. Highway 50 to six lanes through western El Dorado County. Assuming these improvements in place, the cumulative no project and cumulative-plus-project traffic volumes were analyzed to determine the resulting levels of service. Cumulative no project traffic forecasts were generated by the El Dorado County Department of Transportation (DOT) using the County's daily travel demand model. Daily project trips were added to the cumulative no project forecasts by Fehr & Peers Associates, Inc. to create the cumulative-plus-project forecasts.



Source: Fehr & Peers Associates, Inc., 1995.

Planned Roadway Improvements

EXHIBIT 7-1

Not To Scale

NORTH

General Plan land use map, the General Plan would allow for the potential development of approximately 94,000 additional residential units with a corresponding population increase of approximately 250,000 over 1990 levels. Total acreage of commercial and industrial land use designations under the General Plan would be 7,235 acres. However, growth under the General Plan would be market driven, and buildout would not occur in the foreseeable future. Accordingly, General Plan population projections are based on current growth rates (El Dorado County 1994). Please refer to Table 4.4-1 in Section 4.4 of this EIR for this information.

The bulk of projected General Plan development would occur in Regional Analysis Area 1, which includes the El Dorado Hills, Cameron Park/Shingle Springs, Diamond Springs/El Dorado, and Placerville Market Areas, and the project site.

DEVELOPMENT PROJECTS IN THE VICINITY

A number of development projects have been proposed or approved for areas in the vicinity of the Carson Creek Specific Plan project area. These projects include those within El Dorado County and those within the City of Folsom, northwest of the project area. Exhibit 3-4 of Section 3, Project Description, depicts the approximate size and location of these projects in relation to the project site.

El Dorado County Projects

Several development projects in the vicinity of the Carson Creek Specific Plan project area have been approved by El Dorado County, but are as yet unbuilt, and some projects are currently being planned. Although the impacts of these projects have been included in the General Plan projections discussed above, descriptions of the projects are provided below to give a better picture of reasonably anticipated future development in the project vicinity.

Springfield (Joerger) Ranch

Springfield Ranch, formerly known as "Joerger Ranch," is an approved, unbuilt, 147-acre residential subdivision located north of White Rock Road, south of SR 50, and immediately east of Sacramento County. The project was approved by El Dorado County in 1992 for a total of 283 dwelling units and 26.9 acres of open space. Springfield Ranch is located just north of the proposed Carson Creek Specific Plan project.

Rancho Dorado

Rancho Dorado is an approved, unbuilt, 124.4-acre mostly residential project located north of SR 50, immediately east of Sacramento County. The project was approved by El Dorado County in 1993 for a total of 207 residential lots, along with 31.5 acres of open space, and 3.2 acres of public park uses. In relationship to the proposed Carson Creek Specific Plan project, Rancho Dorado is located north of Springfield Ranch.

El Dorado Hills Business Park

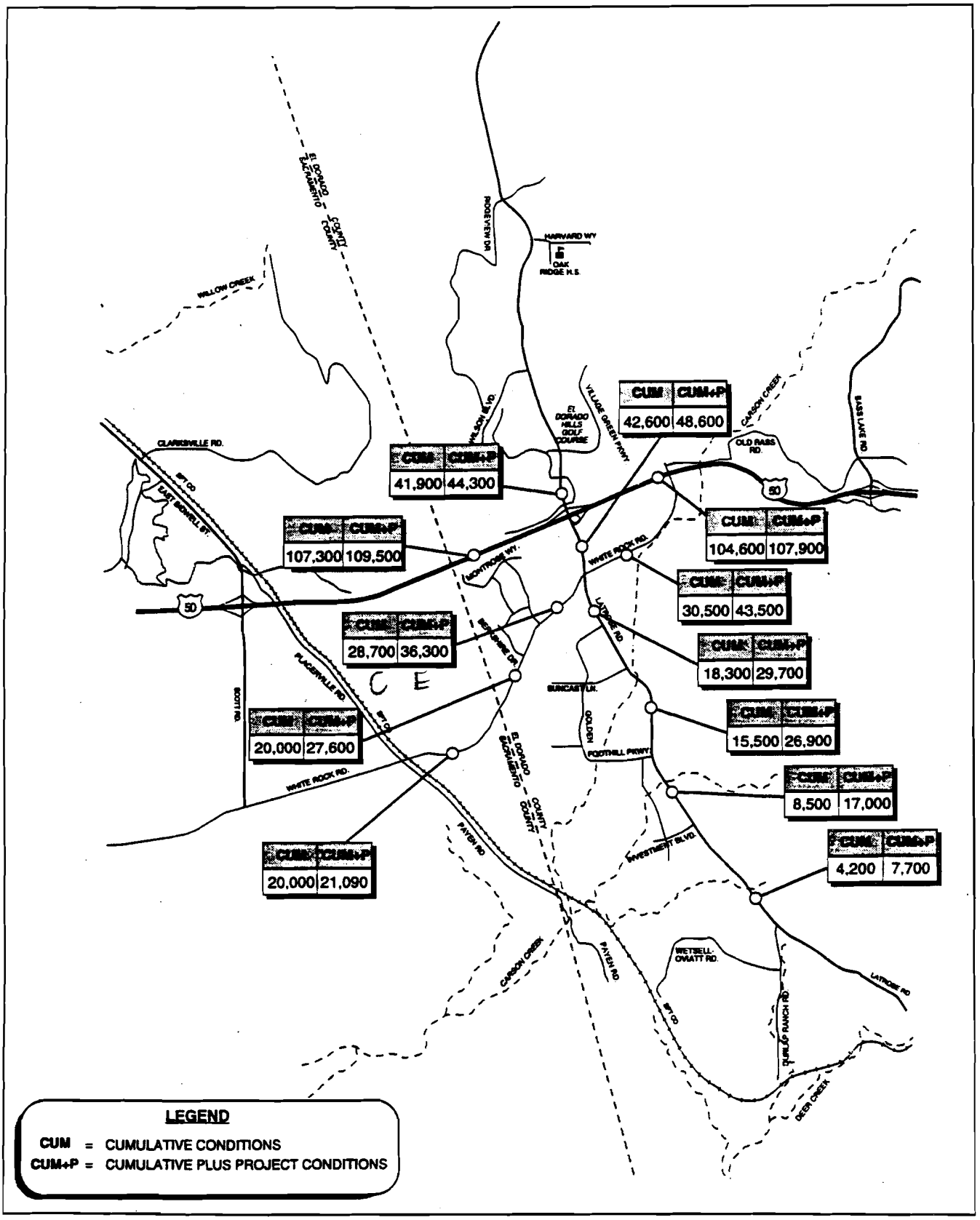
El Dorado Hills Business Park is an approved and developing 900-acre business park that will ultimately be the largest single employment center in western El Dorado County. The business park is located immediately east of the proposed Carson Creek Specific Plan area. The business park was approved in the early 1980's by El Dorado County. By year 2015, the business park is expected to experience growth of an estimated 3.8 million square feet of light industrial, warehousing, office, research and development, and service uses. An Architectural Review Committee (ARC) was established through the Declaration of Protective Covenants El Dorado Hills Business Park (CC&Rs) to review all development proposals in the business park area.

El Dorado Hills Specific Plan

The El Dorado Hills Specific Plan was approved by El Dorado County in July 1988 for the development of mixed uses on 4,086 acres located generally east of El Dorado Hills Boulevard, west of Bass Road, south of Green Valley Road, and predominantly north of U.S. Highway 50 (although some portion is located south of U.S. Highway 50 on both sides of Latrobe Road). The specific plan would allow for development of 7,346 dwelling units, and up to 260 acres of commercial, 1,020 acres of open space, 370 acres of golf course, 26 acres of park, 60 acres of school, 27 acres of village green/community center land uses, and 139 acres of major roadways. This project is located generally northeast of the proposed Carson Creek Specific Plan project.

Valley View

El Dorado County is currently reviewing an application and processing an EIR for a proposed Valley View Specific Plan, a 2,038-acre mixed use development proposal located east of Latrobe Road and the Carson Creek Specific Plan proposal. Although the application and environmental review process for the Valley View project has been inactive for several months, Valley View is considered as a potential project for the purpose of cumulative impact analysis. The Valley View Specific Plan project is currently proposed with primarily residential uses, and with a school, open space and parks, and mixed use



Source: Fehr & Peers Associates, Inc., 1996.

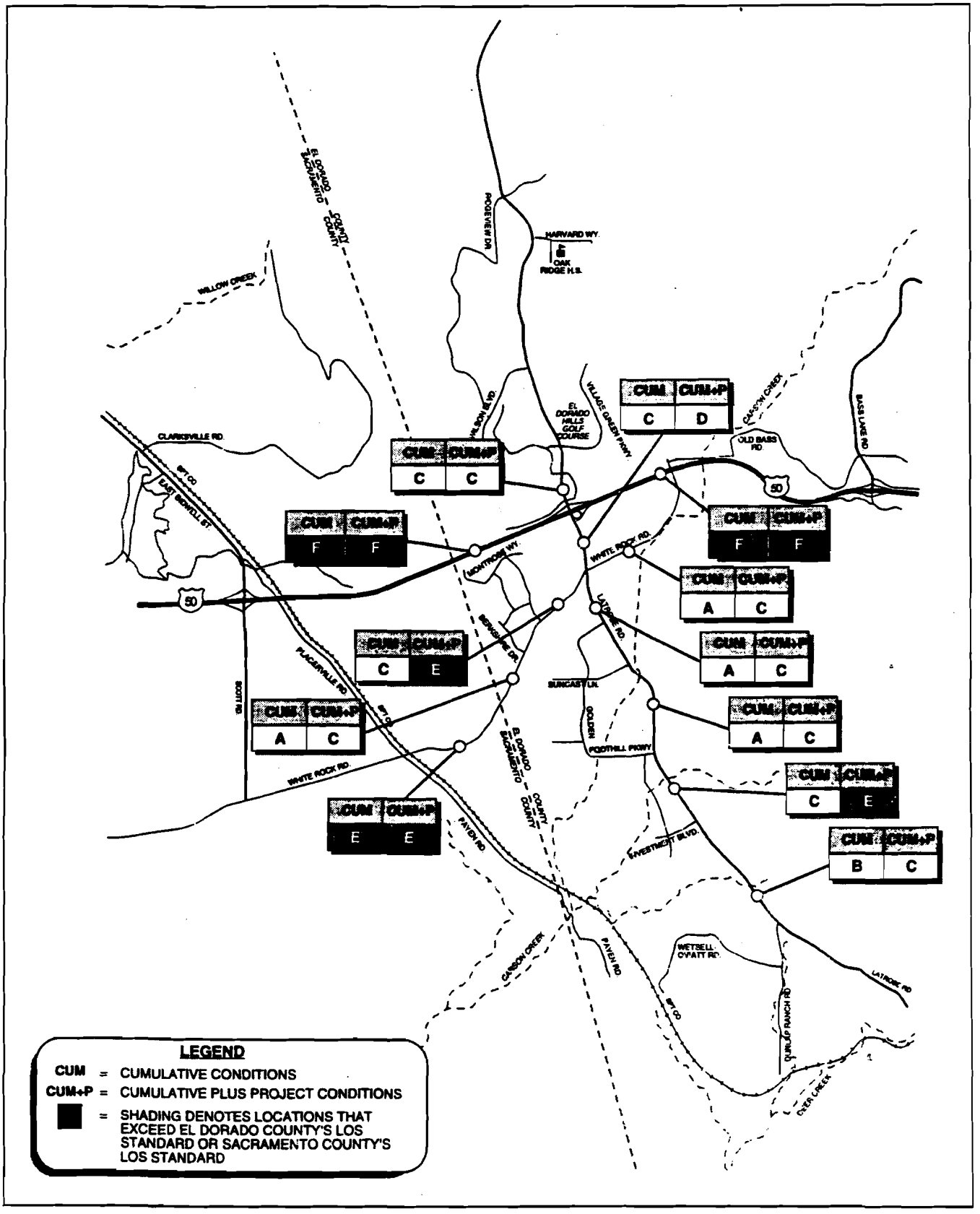
Cumulative Plus Project Daily Traffic Volumes

EXHIBIT 7-3

CARSON CREEK SPECIFIC PLAN

Not To Scale

NORTH



Source: Fehr & Peers Associates, Inc., 1996.

Cumulative Plus Project Levels of Service

EXHIBIT 7-4

Not To Scale

NORTH

commercial "village centers". The land use acres and specific locations may be changing in the Valley View Specific Plan project as refinements occur through the development review process.

City of Folsom Projects

The City of Folsom is considering or has approved several development projects in the vicinity of the Carson Creek Specific Plan project area. Construction has begun on at least one of the projects. A description of these projects is provided below.

Broadstone Unit #3

The City of Folsom is currently reviewing an application and processing an EIR for the proposed Broadstone Unit #3 (Broadstone 3), a 570-acre mixed-use development proposal located east of East Bidwell Street and north of U.S. Highway 50. The Broadstone 3 project is currently proposed with 642 single-family and 149 multi-family residential units, 19 acres of commercial uses, and 184 acres of industrial uses.

The Parkway

The Parkway is an approved, 612-acre mixed-use development located east of Blue Ravine Road and northwest of the Carson Creek Specific Plan area. As approved, the Parkway consists of 1,355 single-family units, 780 multi-family units, and 12 acres of commercial uses. Construction is currently underway on the single-family units.

Russell Ranch

The Russell Ranch project, a 1,791-acre mixed-use development located adjacent to the County line and north of U.S. Highway 50, was approved by the City of Folsom in December 1992, but is yet to be built. As approved, Russell Ranch proposes 3,844 single-family units, 344 multi-family units, 20 acres of commercial uses, and 2 golf courses.

7.2.3 CUMULATIVE IMPACT EVALUATION

LAND USE

It is reasonable to assume that cumulative development would be consistent with the El Dorado County General Plan, as adopted January 1996. The proposed project would be developed consistent with the El Dorado County General Plan land use designation of "Planned Community." The County General

Plan included the Carson Creek Specific Plan land used under consideration at that time which included: 470.2 acres of residential (2,941 units, population of 7,043), 81.9 acres of commercial, 9.5 acres of industrial, 33.0 acres of parks, 85.4 acres of open space, and two schools. Some previously undeveloped land areas would be developed under the General Plan; however, the rural/semi-rural nature of a majority of the County would be preserved, while development would be allowed in certain designated areas. Restrictions on the development of open space and scenic areas within the County, as well as consistency with the General Plan, would limit potential future land use conflicts with existing residents. No significant cumulative land use impacts are anticipated; no mitigation measures are necessary.

AESTHETICS

Cumulative development in the region would result in a long-term change to the aesthetic character of many locations from open, undeveloped lands to more-suburban and urban uses. Proposed and required landscape measures would reduce visual impacts from cumulative development. However, as new development occurs, the character of roadway and local resident views can be expected to be altered to a more urban rather than rural visual experience. This impact would need to be evaluated and mitigated on a project-by-project basis, as would occur with the proposed project. The proposed project, as discussed in Section 4.3 of this EIR, would result in significant aesthetic (visual) impacts and would, therefore, contribute to adverse cumulative impacts. Visual impact pertaining to views from White Rock Road and Golden Foothills Parkway would be significant and unavoidable.

MITIGATION MEASURE 7-1: PROJECT CONTRIBUTION TO CUMULATIVE AESTHETIC IMPACTS

Apply mitigation measures 4.3-2 and 4.3-5. No further mitigation measures are available.

POPULATION, EMPLOYMENT, AND HOUSING

As discussed in Section 4.4, Population, Employment, and Housing, of this EIR, development under the General Plan would result in County-wide population growth of approximately 106,000 from the 1994 figure of 144,000 to approximately 250,000 by the year 2015. The number of housing units in El Dorado County is projected to increase by approximately 33,000 units from the 1990 figure of 61,451 units to 94,755 units by the year 2010. Employment estimates project that the total number of jobs will increase by 35,538 between 1990 and 2010. As mentioned under cumulative land use, the proposed project is generally within the residential and employment development parameters assumed in the County General Plan for the project area.

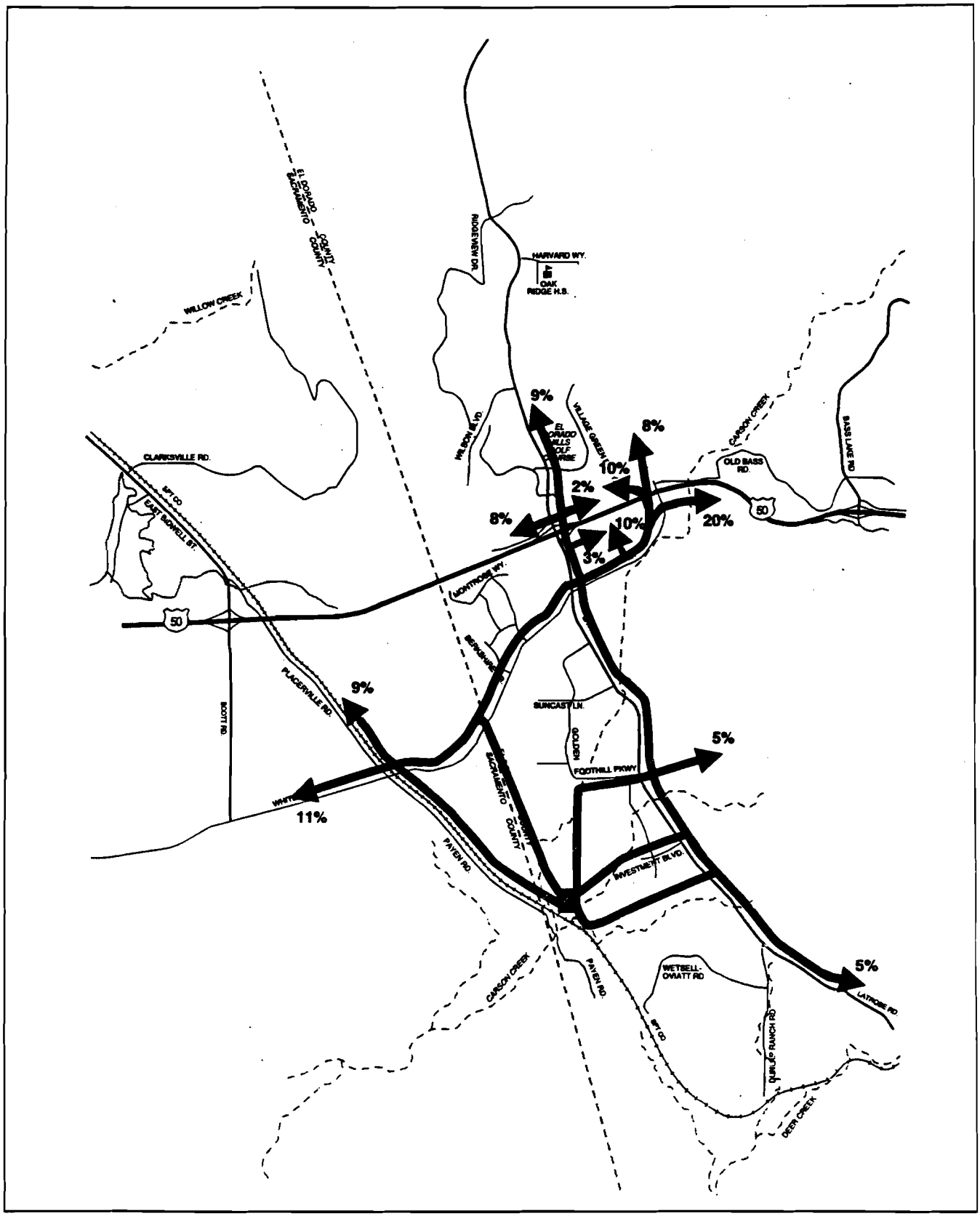
The State CEQA Guidelines §15131 provides that economic or social effects alone are not considered to be significant impacts. However, physical changes caused by economic or social effects of a project may

An important change in trip generation between the existing-plus-project analysis and the cumulative-plus-project analysis is that a higher internalization rate was used for project trips. According to the El Dorado County DOT, the County's traffic model indicated a trip reduction of 40% due to the internalization of project trips (Gedney, pers. comm., 1995). This is substantially higher than the 15% internalization rate used in the existing-plus-project analysis scenario. The higher percentage, according to County staff, is a direct result of the mixed uses with the Carson Creek Specific Plan and its proximity to the El Dorado Hills Business Park, which would be more fully developed under cumulative conditions. With a 40% reduction for internalization, the project would generate about 27,200 daily vehicle trips on the external roadway network. This project traffic was added to the cumulative no project forecasts to create the cumulative-plus-project forecasts based on the future trip distribution percentages shown in Exhibit 7-2. The future trip distribution was developed using the El Dorado County traffic model and input from El Dorado County Department of Transportation staff. The cumulative no project and plus project daily traffic volumes are shown in Exhibit 7-3. These volumes were compared to the service level criteria in Table 4.5-4 (found in Section 4.5 of this EIR). The resulting levels of service are shown in Exhibit 7-4.

Buildout of the Specific Plan would increase cumulative daily traffic volumes on Latrobe Road, White Rock Road, El Dorado Hills Boulevard, and U.S. 50 resulting the following significant cumulative impacts:

- Latrobe Road (Golden Foothill Parkway South to Investment Boulevard) - The addition of project traffic under cumulative conditions causes a deterioration in the daily roadway segment LOS to E. This is considered a significant impact.
- White Rock Road (Latrobe Road to Project Access) - The addition of project traffic under cumulative conditions causes a deterioration in the daily roadway segment LOS to E. This is considered a significant impact.
- White Rock Road (El Dorado County Line to Placerville Road) - The addition of project traffic under cumulative conditions exacerbates daily roadway segment LOS E conditions on White Rock Road in Sacramento County. This is considered a significant impact.
- U.S. 50 - The addition of project traffic under cumulative conditions exacerbates daily roadway segment LOS F conditions. This is considered a significant impact.

Although the analysis locations on Latrobe Road and White Rock Road in El Dorado County continue to operate at LOS E or better under cumulative plus project conditions, significant impacts are identified because Policy 3.5.1.1 of the County's General Plan states that all road segments projected in the roadway plan at the year 2015 to be operating at LOS A, B, or C shall not be allowed to fall below LOS C and all road segments at LOS D shall not fall below LOS D. According to the El Dorado County General Plan, White Rock Road and Latrobe Road are both expected to operate at LOS D by 2015. With the addition of daily trips from the proposed project, sections of these roadways will operate at LOS E.



Source: Fehr & Peers Associates, Inc., 1996.

Future Project Traffic Distribution

EXHIBIT 7-2

CARSON CREEK SPECIFIC PLAN

Not To Scale

NORTH

A significant impact would also occur on White Rock Road in Sacramento County because the addition of daily project traffic will exacerbate LOS E conditions. Level of service E exceeds Sacramento County's LOS D standard for this portion of White Rock Road. As traffic volumes increase on U.S. Highway 50, many trips are diverted to White Rock Road because it provides a parallel route into Sacramento County. This route is used as a bypass today by some commuters, and its use would become more prevalent in the future as travel delays increase on U.S. Highway 50.

Buildout of the Specific Plan would also increase cumulative daily traffic volumes on U.S. Highway 50 east and west of the El Dorado Hills Boulevard interchange. As the major multi-lane roadway serving El Dorado County in the east-west direction, U.S. Highway 50 would continue to experience high traffic volumes that would exacerbate LOS F conditions on the mainline and at interchanges. This would be considered a significant cumulative impact.

MITIGATION MEASURE 7-2: CUMULATIVE ROADWAY SYSTEM IMPACTS

a) Widening Latrobe Road from two to four lanes between Golden Foothill Parkway South and Investment Boulevard would improve the daily roadway segment LOS to B or better. El Dorado County considers that additional widening may not be feasible due to cost and right-of-way constraints. Due to the uncertainty regarding feasibility, this cumulative impact would remain significant and unavoidable.

b) Widening White Rock Road from four to six lanes between Latrobe Road and the project access would improve the daily roadway segment LOS to B or better. El Dorado County considers that additional widening may not be feasible due to cost and right-of-way constraints. Due to the uncertainty regarding feasibility, this cumulative impact would remain significant and unavoidable.

c) According to the Sacramento County Planning and Community Development Department, White Rock Road in Sacramento County would be maintained as a two-lane rural collector regardless of traffic levels (Tracy, pers. comm., 1994). Widening the roadway to four lanes would not be accepted by Sacramento County. Therefore, the project applicant shall be responsible for their fair-share cost of improving the existing two lanes on White Rock Road from the El Dorado County line to Placerville Drive in Sacramento County. Since this roadway segment is in Sacramento County, the developer shall be responsible for executing an agreement with Sacramento County to share in the cost of the improvements. The project applicant's share of the cost may be collected prior to the issuance of building permits. Implementation of this mitigation measure would improve traffic operating conditions on this segment of White Rock Road but not above LOS E. This cumulative impact would, therefore, remain significant and unavoidable.

d) Mitigation measure 4.5-5 requires the project developer to contribute their "fair-share" cost of widening U.S. Highway 50 to six lanes through the western portion of El Dorado County. Although this would not improve the LOS to E or better, El Dorado County considers that additional widening may not be feasible due to cost and right-of-way constraints. However, widening certain sections to more than six lanes may be possible. Therefore, this cumulative impact would remain significant and unavoidable.

Transit System Cumulative Impacts

Transit impacts under cumulative-plus-project conditions were determined by considering the long-term effect that implementation of the Specific Plan could have on existing and planned transit services and facilities. Buildout of the proposed Specific Plan would increase demand for public transit service and facilities in western El Dorado County, including fixed route service, commuter service, dial-a-ride service, and park-and-ride lot spaces. As presented under discussion for Impact 4.5-8, the Specific Plan does not contain implementation mechanisms for the light rail station and park-and-ride lot and it does not identify bus turnouts or bus shelters. Without mitigation, the project would contribute to cumulative transit impacts.

MITIGATION MEASURE 7-3: PROJECT CONTRIBUTION TO CUMULATIVE TRANSIT IMPACTS

Apply mitigation measure 4.5-8, and no further mitigation is required.

Bicycle and Pedestrian System Cumulative Impacts

Bicycle and pedestrian impacts under cumulative-plus-project conditions were determined by considering the long-term effect that implementation of the Specific Plan could have on existing and planned bicycle/pedestrian facilities. The Specific Plan contains a bicycle and pedestrian network that would be available as connections to any other pathways developed in the area. However, because the project would not provide bicycle lanes along the project's frontage with White Rock Road as proposed in the El Dorado County Bikeway Master Plan, the project would contribute to a significant cumulative bicycle and pedestrian system impact.

MITIGATION MEASURE 7-4: PROJECT CONTRIBUTION TO CUMULATIVE BICYCLE AND PEDESTRIAN SYSTEM IMPACTS

Apply mitigation measure 4.5-9, and no further mitigation is required.

AIR QUALITY

Buildout of the Specific Plan, in conjunction with cumulative growth, would contribute to and exacerbate western El Dorado County's (the portion within the Mountain Counties Air Basin) current non-compliance with state and federal ambient air quality standards. Project-generated emissions, together with emissions from existing and reasonably foreseeable future development, would cumulatively contribute to existing and projected exceedances of state and federal ambient air quality standards for ozone (O_3) and state standards for particulate matter (PM_{10}) in western El Dorado County. Furthermore, as presented in Table 4.6-7, cumulative-plus-project peak-hour traffic volumes could result in an exceedance of the state 8-hour

standard for carbon monoxide (CO) at the Latrobe Road/White Rock Road intersection. These cumulative impacts would be considered significant. Implementation of the cumulative traffic mitigation measures (previously discussed in this section of the EIR) would reduce cumulative air quality impacts but not to a less-than-significant level. In addition, region-wide mitigation measures, such as extension of transit lines, programs to improve carpooling and ridesharing, etc., would also reduce cumulative development's contribution to the regional pollutant load, but significant air quality impacts would remain.

MITIGATION MEASURE 7-5: PROJECT CONTRIBUTION TO CUMULATIVE AIR QUALITY IMPACTS

Apply mitigation measure 7-2. No further mitigation measures are available.

NOISE

Buildout of the proposed Specific Plan, in conjunction with existing and reasonably foreseeable future development, would cumulatively result in increased noise levels along roadways and in developed areas in the project vicinity. As discussed previously in this section, traffic volumes would increase in the project vicinity with cumulative development. Table 7-1 presents projected cumulative-plus-project traffic noise levels for roadway segments in the project vicinity. As presented, cumulative-plus-project traffic noise levels would increase by 3 dBA or greater over existing traffic noise levels at all modeled segments except for two segments of U.S. Highway 50 west and east, respectively, of El Dorado Hills Boulevard. With the exception of Latrobe Road south of Golden Foothill Parkway South, project-related contributions to cumulative traffic noise levels would be less than 3 dBA, which is not generally discernable to the human ear. However, because the cumulative-plus-project traffic noise increases over existing levels would be greater than 3 dBA along 8 of 10 modeled roadway segments, this would be considered a significant cumulative impact.

Increased traffic noise levels projected for cumulative-plus-project development would result in increased noise exposures at sensitive receptors located along affected roadway segments. Although most of the existing and proposed land uses along roadways in the project vicinity are not noise-sensitive in nature, existing and proposed residential uses along White Rock Road north of the project site and along Latrobe Road south of Golden Foothills Parkway South would be exposed to cumulative-plus-project traffic noise levels in excess of the applicable 60 dBA CNEL/L_{dn} County standard for noise-sensitive uses. This would be considered a significant cumulative impact.

MITIGATION MEASURE 7-6: PROJECT CONTRIBUTION TO CUMULATIVE MOBILE SOURCE NOISE

Apply mitigation measure 4.7-2, and no further mitigation is required.

TABLE 7-1
CUMULATIVE PLUS PROJECT TRAFFIC NOISE LEVELS

ROADWAY SEGMENT	Distance From Roadway Centerline to CNEL (feet) [1]			CNEL 50 Feet From Centerline of Near Travel Lane	Increase Over No-project Levels, dBA	Increase Over Cumulative Base, dBA
	70 CNEL	65 CNEL	60 CNEL			
El Dorado Hills Boulevard						
north of US Highway 50	131	404	1,275	72.4	4.0	0.3
Latrobe Road						
US Hwy 50 to White Rock Rd	143	443	1,399	72.8	7.5	0.6
White Rock to Gldn Fthill (N)	88	271	856	71.2	5.7	2.1
Gldn Fthl (N) to Gldn Fthl (S)	80	246	776	70.7	5.6	2.4
south of Golden Foothill (S)	< 50[2]	155	491	69.5	10.2	3.0
White Rock Road						
west of project access	63	193	608	69.7	10.4	0.3
project access to Latrobe Rd	106	332	1,047	72.0	12.2	1.0
east of Latrobe Road	129	397	1,252	72.3	15.4	1.6
U.S. Highway 50						
west of El Dorado Hills Blvd	241	514	1,104	77.0	2.9	0.1
east of El Dorado Hills Blvd	239	509	1,093	76.9	2.8	0.1

1 Does not consider any obstructions to the noise path.
2 Traffic noise levels within 50 feet of the roadway centerline calculated with this model are within the margin of error.

Source: Michael Brandman Associates 1996

BIOLOGICAL RESOURCES

Implementation of the proposed Specific Plan, in conjunction with other reasonably foreseeable future developments in the project vicinity, would contribute to the ongoing loss of natural, undisturbed open space in the region, resulting in a decline of biological resources and species diversity. Cumulative development would also result in increased traffic and human use of the project vicinity, which would increase human intrusion and activity levels in proximity to habitat areas and wildlife use areas and,

therefore, further reduce the quantity and quality of wildlife habitat. This would be a significant impact. However, cumulative impacts to biological resources would be mitigated on a project-by-project basis, as with the proposed project.

MITIGATION MEASURE 7-7: PROJECT CONTRIBUTION TO CUMULATIVE BIOLOGICAL RESOURCES

Apply mitigation measures 4.8-2 and 4.8-3, and no further mitigation is required.

EARTH RESOURCES

Due to the nature of earth resources, adverse impacts are site-specific and are generally not affected by, or do not affect, other development in the region. However, if this were a different project, cumulative effects could be considered if the project was, for example, part of a larger hillside development where dominant topographic features were being eliminated, or a substantial imbalance in earth were to occur with grading. However, this is not the case with the proposed project and it is not considered to contribute to cumulative impacts to earth resources.

HYDROLOGY AND WATER QUALITY

Significant cumulative impacts to hydrology and water quality could result if and when future development contributes additional runoff to the Carson Creek watershed. A recent preliminary hydrology study, the Carson Creek Regional Drainage Study, was performed on the 15-square-mile Carson Creek watershed by Shari Bottorff, consulting hydrologist. The drainage study was submitted to the El Dorado County Department of Transportation (DOT) for review on April 25, 1995, and has recently been determined to be technically adequate by DOT (Collier, pers. comm., 1996). The watershed hydrology report includes Carson Creek and other planned, developing, and built projects in the area. Final drainage plan design would be required to be prepared by a Certified Civil Engineer and would be subject to El Dorado County DOT approval prior to grading plan approval. Some of the upstream projects would be required by the County to, like the Carson Creek Specific Plan, include their own detention basins or other flood control measures designed to limit outflows to existing levels. The projected peak flows identified in the Carson Creek Regional Drainage Study assume the implementation of such detention/flood control measures (Bottorff, pers. comm., 1995). Given that the Specific Plan proposes detention basins designed to limit peak flow to existing levels and that the project site constitutes only 7.4% (1.1 square miles) of the 15-square-mile watershed, future upstream development would likely contribute to the majority of the projected peak flow increase. However, because buildout of the Specific Plan could contribute to this projected increase in peak flows in the Carson Creek watershed, surface runoff impacts would be considered potentially significant.

MITIGATION MEASURE 7-8: CUMULATIVE HYDROLOGY AND WATER QUALITY IMPACTS

Apply Mitigation Measures 4.10-1 and 4.10-6, and no further mitigation is required.

CULTURAL RESOURCES

Any future development that would require excavation or grading activities has the potential to disturb cultural materials should they be located on, or under, a development site. If resources are found and not properly recorded or removed, then a cumulative loss of cultural resources could occur. However, the potential for cumulative impacts can be mitigated through project-by-project management of resources. The proposed project has the potential to significantly affect cultural resources, for which project-specific mitigation has been developed. Therefore, the following mitigation would reduce the project's contribution to potentially significant cultural resources.

MITIGATION MEASURE 7-9: PROJECT CONTRIBUTION TO POTENTIAL CUMULATIVE CULTURAL RESOURCES IMPACTS

Apply mitigation measure 4.11-1, and no further mitigation is required.

SCHOOLS

Public schools would be adversely affected by cumulative buildout, because local school districts are currently operating at near or over capacity. This would be considered a significant cumulative impact. Although mitigation for cumulative impacts is available in the form of developer fees and ADA funding, such measures alone would not reduce cumulative impacts to a less-than-significant level. Accordingly, mitigation for cumulative schools impacts would be required on a project-by-project basis.

FIRE PROTECTION AND AMBULANCE/PARAMEDIC SERVICES

The proposed project would not result in significant impacts on fire services and would not, therefore, contribute to cumulative fire protection impacts. Cumulative buildout of the El Dorado Hills area would increase the current demand for fire protection and ambulance services. Mitigation for cumulative impacts would be derived primarily from general fund revenues as new residential and commercial construction occurs in the area. A new fire station is already planned in the El Dorado Hills Business Park, which is to be built and put into operation when additional development occurs in the business park. Cumulative impacts are anticipated to be less than significant.

LAW ENFORCEMENT

The project-generated demand for law enforcement services would significantly affect the ability of the El Dorado County Sheriff's Department to maintain current levels of service. Cumulative development would increase demand on these services, resulting in the need for additional officers and equipment. It is anticipated that general fund revenue increases would offset some of these services. However, available funding is primarily an El Dorado County policy and budgeting decision reviewed at least every year. If funding is not available to increase staffing concurrent with cumulative growth, then a significant cumulative impact would result. Proposed project mitigation measures would also be applicable to the project's contribution to cumulative law enforcement.

MITIGATION MEASURE 7-10: PROJECT CONTRIBUTION TO CUMULATIVE LAW ENFORCEMENT IMPACTS

Apply mitigation measure 4.14-1, and no further mitigation is required.

SOLID WASTE DISPOSAL

Adequate capacity is currently available to accommodate solid waste generated by buildout of the Specific Plan and other development in western El Dorado County. As discussed in Section 4.15 (Solid Waste Disposal), the Union Mine Disposal Site has an estimated capacity to accommodate solid waste generated by the proposed project, existing development, and reasonably foreseeable future development for approximately 37 years. Landfill closure is anticipated to take place around 2032. Because sufficient landfill capacity is available to accommodate regional growth for the reasonably foreseeable future, no significant cumulative solid waste impacts would be anticipated.

PARKS, RECREATION, AND COMMUNITY SERVICES

The proposed Specific Plan, in conjunction with other reasonably foreseeable future development within the EDHCSD, would increase the demand for parks, recreational facilities, and community services. Individual developments would be required to comply on a project-specific basis with the EDHCSD's parkland dedication requirement and relevant General Plan policies related to parks, recreation, open space. Since the proposed project itself would result in a shortfall of up to 7 fewer acres of active parkland than required by EDHCSD, depending on the densities proposed in each phase of development, it would contribute to a cumulative shortfall of parks and would be considered a significant cumulative impact. Project mitigation would resolve the shortfall contributed by the Carson Creek Specific Plan.

MITIGATION MEASURE 7-11: PROJECT CONTRIBUTION TO CUMULATIVE PARKS AND RECREATION IMPACTS

Apply mitigation measure 4.16-1, and no further mitigation is required.

LIBRARY SERVICE

Buildout of the Specific Plan, in combination with cumulative development, would result in increased demand for library service within the County. Existing and planned funding mechanisms would ensure that future demand for library service is met. For example, individual projects would be required to pay applicable library assessment fees. Therefore, significant cumulative impacts to library service are not anticipated.

WATER SERVICE

Cumulative development in the County would result in increased water demand. Project impacts cannot be reduced to a less-than-significant level until the EID procures new water supplies that are sufficient to meet water needs of the proposed Specific Plan at buildout in conjunction with existing planned growth, or an alternative public water source is secured. The project applicant would be required to implement project-specific mitigation measures before approval of building permits. However, the General Plan estimates the difference between existing annual water supply and projected annual demand in year 2015 is 14,614 acre-feet. The General Plan notes that because new water supply sources currently pursued by EID and the EDCWA total 22,625 acre-feet per year, it is "highly probable" that an adequate water supply will be available to serve the County's project growth in the EID service area. But until such time as future General Plan level and project level water supply is secured, water availability is considered a cumulatively significant impact.

MITIGATION MEASURE 7-12: CUMULATIVE WATER SERVICE IMPACTS

Apply mitigation measure 4.18-1. No further mitigation measures are available.

WASTEWATER SERVICE

Cumulative development in the County would result in increased demand for wastewater services. Wastewater treatment facility and infrastructure expansions are planned to accommodate anticipated regional growth. No significant cumulative wastewater service impacts would be anticipated.

ELECTRICITY AND NATURAL GAS

Cumulative development in the County would result in increased demand for electricity and natural gas service. However, the necessary infrastructure would extend from the existing electricity and natural gas infrastructure. Therefore, cumulative impacts on electricity and natural gas service are anticipated to be less than significant.

TELEPHONE AND CABLE TELEVISION

The proposed Specific Plan, in conjunction with cumulative development in the project vicinity, would result in increased demand for telephone and cable television service. However, the necessary infrastructure would extend from existing facilities. Therefore, cumulative impacts on telephone and cable television service would be less than significant.

RISK OF UPSET

Risk of upset impacts are site-specific and are generally not affected by cumulative development in the region. Impacts would need to be determined on a project-by-project basis.

7.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

CEQA §21100(b)(2) provides that an EIR shall include a detailed statement setting forth "[i]n a separate section ... [a]ny significant effect on the environment that would be irreversible if the project is implemented." However, a discussion of significant irreversible environmental effects need only be included in EIRs for three types of projects as listed in CEQA §21100.1. Specifically, CEQA §21100.1(a) requires that a discussion of significant irreversible environmental effects be included in an EIR prepared in connection with "[t]he adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency." Because the proposed project is a plan for the development of the project site proposed for adoption by El Dorado County, a discussion of significant irreversible environmental changes is provided in this section.

State CEQA Guidelines §15126(e) provides the following guidelines for analyzing the significant irreversible environmental changes of a project:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally

commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Implementation of the proposed Specific Plan would facilitate the conversion of 710 acres of agricultural and open space land to a variety of developed uses including residential, commercial, research and development, schools, and recreational park areas. This change in land use would represent a long-term commitment to urbanization, as the potential for developed land to be reverted back to agricultural or open space uses is highly unlikely. It is probable that the proposed Specific Plan land uses would ultimately be replaced by other productive uses as development and redevelopment respond to human needs and demands over time. Changes proposed by the Specific Plan are generally consistent with El Dorado County General Plan goals and policies regarding growth and planned development patterns.

The loss of agricultural land inherent in the proposed project would constitute an irreversible and irretrievable commitment of resources within the Specific Plan area and, cumulatively with other similar projects, within El Dorado County as a whole. This would be considered an irreversible environmental change.

In addition to the loss of grazing and open space land, the proposed project would result in the commitment of nonrenewable resources, primarily in the form of fossil fuels. These may include fuel oil, natural gas, and gasoline for vehicles used in the construction and subsequent activities associated with Specific Plan area developments. Other nonrenewable and slowly-renewable resources consumed as a result of development would include, but not necessarily be limited to, lumber and other forest products, sand and gravel, asphalt, petrochemical construction materials, steel, copper, lead, and water.

As discussed in previous sections, implementation of the Specific Plan would also result in increased local demands on community services and public utilities. Such demands would necessitate the extension, expansion, and/or construction of infrastructure facilities. The mitigation measures provided in previous sections would reduce impacts associated with increased demands on community services and public utilities.

7.4 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

CEQA §21100(b)(2) provides that an EIR shall include a detailed statement setting forth "[i]n a separate section ... [a]ny significant effect on the environment that cannot be avoided if the project is implemented." Accordingly, this section provides a summary of significant environmental impacts of the proposed project that cannot be mitigated to less-than-significant levels. Significant unavoidable

environmental impacts of the proposed project are discussed in Sections 4.3 (Aesthetics), 4.6 (Air Quality), and 4.18 (Water Service) of this EIR and are summarized here.

IMPACT 4.3-2: WHITE ROCK ROAD AT MANCHESTER LANE. VIEWS OF THE PROJECT SITE ALONG WHITE ROCK ROAD AT MANCHESTER LANE ARE UNOBSTRUCTED, AND PREDOMINANTLY INCLUDE GENTLY SLOPING, UNDEVELOPED TERRAIN. VIEWS OF UNDEVELOPED LAND WOULD BE SUBSTANTIALLY ALTERED BY PROPOSED DEVELOPMENT. A 30-FOOT WIDE HEAVILY LANDSCAPED GREENBELT WOULD REDUCE THESE IMPACTS BUT NOT TO A LESS-THAN-SIGNIFICANT LEVEL. THIS IMPACT WOULD BE CONSIDERED SIGNIFICANT.

IMPACT 4.3-3: WHITE ROCK ROAD AT EL DORADO/SACRAMENTO COUNTY LINE. OPEN VIEWS OF UNDEVELOPED, GENTLY SLOPING LAND ALONG WHITE ROCK ROAD NEAR THE SACRAMENTO COUNTY BORDER WOULD BE SUBSTANTIALLY ALTERED BY INTRODUCTION OF NEW PROJECT DEVELOPMENT. A 30-FOOT WIDE HEAVILY LANDSCAPED GREENBELT WOULD REDUCE THE VISUAL EFFECTS OF URBAN DEVELOPMENT, BUT OBSTRUCTION OF THE SITE WOULD OCCUR. THIS IMPACT WOULD BE CONSIDERED SIGNIFICANT.

IMPACT 4.3-5: GOLDEN FOOTHILLS PARKWAY AT CARSON CREEK. THE PRIMARY AESTHETIC FEATURE, CARSON CREEK, WOULD REMAIN UNALTERED WITH THE PROPOSED PROJECT. NONETHELESS, DEVELOPMENT ON SURROUNDING LAND WOULD BE A SUBSTANTIAL AND ADVERSE CHANGE IN EXISTING CONDITIONS. THIS WOULD BE A SIGNIFICANT IMPACT.

IMPACT 4.6-1: PHASE I (GRADING PHASE) CONSTRUCTION EMISSIONS. GRADING ACTIVITIES ASSOCIATED WITH THE CONSTRUCTION OF SPECIFIC PLAN LAND USES WOULD GENERATE INDIVIDUAL, SITE-SPECIFIC SHORT-TERM ROG, NO_X, AND PM_{10} EMISSIONS THAT WOULD EXCEED APPLICABLE EL DORADO COUNTY APCD THRESHOLDS. THIS WOULD BE CONSIDERED A SIGNIFICANT AND UNAVOIDABLE SHORT-TERM IMPACT.

IMPACT 4.6-2: PHASE II (FACILITIES PHASE) CONSTRUCTION EMISSIONS. CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE CONSTRUCTION OF SPECIFIC PLAN INFRASTRUCTURE AND LAND USES WOULD GENERATE SHORT-TERM ROG AND NO_X EMISSIONS THAT WOULD EXCEED APPLICABLE EL DORADO COUNTY APCD THRESHOLDS. THIS WOULD BE CONSIDERED A SIGNIFICANT AND UNAVOIDABLE SHORT-TERM IMPACT.

IMPACT 4.6-3: STATIONARY SOURCE EMISSIONS. BUILDOUT OF THE SPECIFIC PLAN WOULD RESULT IN AN INCREASE IN LONG-TERM REGIONAL ENERGY CONSUMPTION. PROJECTED EMISSIONS RELATED TO NATURAL GAS AND RESIDENTIAL FIREPLACE EMISSIONS WOULD RESULT IN EXCEEDANCES OF THE EL DORADO COUNTY APCD THRESHOLDS FOR ROG AND NO_X. THIS WOULD BE CONSIDERED A SIGNIFICANT AND UNAVOIDABLE IMPACT.

IMPACT 4.6-4: REGIONAL MOBILE SOURCE EMISSIONS. BUILDOUT OF THE SPECIFIC PLAN WOULD RESULT IN INCREASED VEHICLE TRIPS AND ASSOCIATED MOBILE SOURCE EMISSIONS. VEHICLE EMISSIONS ATTRIBUTABLE TO BUILDOUT OF THE SPECIFIC PLAN WOULD RESULT IN EXCEEDANCES OF THE EL DORADO COUNTY APCD ROG, CO, AND NOX SIGNIFICANCE THRESHOLDS. THIS WOULD BE CONSIDERED A SIGNIFICANT AND UNAVOIDABLE IMPACT.

IMPACT 4.18-1: WATER CONSUMPTION. BUILDOUT OF THE PROPOSED SPECIFIC PLAN WOULD INCREASE WATER DEMAND ON THE PROJECT SITE. CURRENTLY, INSUFFICIENT WATER RIGHTS ARE AVAILABLE TO SERVE THE SPECIFIC PLAN. UNTIL ADDITIONAL WATER SUPPLY SOURCES ARE FOUND THAT CAN ADEQUATELY SERVE THE PROPOSED PROJECT, THIS WOULD BE CONSIDERED A SIGNIFICANT IMPACT.

IMPACT 4.18-3: FIREFLOW DEMAND. BUILDOUT OF THE SPECIFIC PLAN WOULD RESULT IN INCREASED FIREFLOW DEMAND. BECAUSE INSUFFICIENT WATER SUPPLY IS CURRENTLY AVAILABLE TO SERVE THE PROJECT SITE, FIREFLOW DEMAND FOR THE PROJECT SITE WOULD NOT BE MET UNTIL AN ADDITIONAL WATER SUPPLY SOURCE IS FOUND. THIS WOULD BE A SIGNIFICANT IMPACT.

IMPACT 4.18-4: GENERAL PLAN CONSISTENCY. THE PROPOSED SPECIFIC PLAN WOULD BE REQUIRED TO COMPLY WITH RELEVANT GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES. BECAUSE INSUFFICIENT WATER IS CURRENTLY AVAILABLE TO SUPPLY THE PROJECT SITE AT BUILDOUT, THE SPECIFIC PLAN WOULD BE INCONSISTENT WITH POLICIES 5.2.1.2, 5.2.1.3, AND 5.2.1.4. THIS WOULD BE CONSIDERED A SIGNIFICANT IMPACT.

In addition to the significant and unavoidable project-level impacts listed, the proposed project would contribute to significant and unavoidable **cumulative** impacts related to aesthetics (Impact 7-1), transportation and circulation (Impact 7-2), air quality (Impact 7-5), and water service (Impact 7-12). These impacts are discussed in Section 7.2 (Cumulative Impacts) of this EIR.

SECTION 8
REFERENCES AND PERSONAL COMMUNICATIONS

8.1 REFERENCES

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8.2 PERSONAL COMMUNICATIONS

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SECTION 10
ACRONYMS AND ABBREVIATIONS

AAQS	ambient air quality standards
ac	acre
ac-ft	acre-foot
ac-ft/yr	acre-feet per year
ACOE	U.S. Army Corps of Engineers
AD	assessment district
APCD	air pollution control district
AQMD	air quality management district
ARC	architectural review committee
ASTM	American Society of Testing and Materials
AVO	average vehicle occupancy
BFE	base flood elevation
BMP	best management practices
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCAAP	California Clean Air Act Plan
CC&Rs	Declaration of Protective Covenants El Dorado Business Park
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CFD	community facilities district
CFS	cubic feet per second
CIP	capital improvement program
CNDDB	California Natural Diversity Data Base
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CPUC	California Public Utilities Commission
CSD	community services district
dB	decibel
dBA	decibel A-weighted
DEIR	draft environmental impact report
DOT	El Dorado County Department of Transportation
du	dwelling unit
du/ac	dwelling units/acre
EDCWA	El Dorado County Water Agency
EDD	State Employment Development Department
EDHWTP	El Dorado Hills Wastewater Treatment Plant
EDU	equivalent dwelling unit
EID	El Dorado Irrigation District
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration

FIP . . . . . federal implementation plan
FIRM . . . . . Federal Insurance Rating Map
FPR . . . . . Facility Plan Report
ITE . . . . . Institute of Traffic Engineers
LAFCO . . . . . El Dorado County Local Agency Formation Commission
L_{dn} . . . . . Day-Night Average Sound Levels
L_{eq} . . . . . equivalent noise level
lbs/day . . . . . pounds per day
LOS . . . . . level of service
MCE . . . . . maximum credible earthquake
mgd . . . . . million gallons per day
mph . . . . . miles per hour
MRF . . . . . materials recovery facility
MSL . . . . . mean sea level
$\mu g/m^3$ . . . . . micrograms per cubic meter
NAAQS . . . . . National Ambient Air Quality Standards
NO_x . . . . . nitrogen oxides
NO_2 . . . . . nitrogen dioxide
NOP . . . . . notice of preparation
NPDES . . . . . National Pollutant Discharge Elimination System
NSR . . . . . new source review
O_3 . . . . . ozone
OPR . . . . . State Office of Planning and Research
PC . . . . . planned community
PG&E . . . . . Pacific Gas & Electric Company
PM_{10} . . . . . particulate matter under 10 microns in diameter
ppm . . . . . parts per million
psi . . . . . pounds per square inch
ROAP . . . . . Regional Ozone Attainment Plan
ROG . . . . . reactive organic gases
SCAQMD . . . . . South Coast Air Quality Management District
SIPs . . . . . state implementation plans
SMAQD . . . . . Sacramento Metropolitan Air Quality District
SO_2 . . . . . sulfur dioxide
SO_x . . . . . sulfur oxides
SPRR . . . . . Southern Pacific Railroad
sq ft. . . . . square foot
SVAAQMA . . . . . Sacramento Valley Area Air Quality Maintenance Area
SWRCB . . . . . State Water Resources Control Board
TCM . . . . . transportation control measures
TRA . . . . . tax rate areas
TSP . . . . . total suspended particulates
UBC . . . . . Uniform Building Code
USFWS . . . . . U.S. Fish and Wildlife Service
V/C . . . . . volume-to-capacity ratio
VMT . . . . . vehicle miles traveled
VOC . . . . . volatile organic compound
vpd . . . . . vehicles per day
WHR . . . . . Wildlife Habitat Relationships