

# LUMSDEN RANCH

**DRAFT**

## **ENVIRONMENTAL IMPACT REPORT** **SCH No. 2007032130**

**Volume 1**

Submitted to:

City of Placerville  
Community Development Department  
3101 Center Street  
Placerville, California 95667  
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Submitted by:

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Sacramento, California 95834  
Contact: Scott Goebel, Project Manager  
916.565.0356



February 27, 2009



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# CHAPTER ES

## EXECUTIVE SUMMARY

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### PURPOSE AND SCOPE OF EIR

The City of Placerville is the lead agency responsible for preparation of this Draft Environmental Impact Report (EIR). The Draft EIR discusses the environmental effects of approving a phased Tentative Subdivision Map and a Planned Development Overlay for subdivision of approximately 133 acres located within the City into 366 single-family parcels to be named Lumsden Ranch.

The purpose of this EIR is to provide decision-makers, public agencies, and the general public with information on the significant environmental effects of the project and to identify feasible alternatives and mitigation measures to avoid or reduce those effects.

The project objectives are to create a residential development that:

- Is consistent with the policies of the City's General Plan.
- Maximizes housing stock consistent with project area's general plan land use designation and zoning to address regional housing needs.
- Uses a Planned Development Overlay to allow for more flexible design than is permissible under the conventional zoning codes.
- Retains approximately 50 percent of the project area as open space that will preserve existing biological habitat and canopy cover, with much of the land undisturbed by construction activities.
- Is compatible with adjacent land uses.
- Is an in-fill project that fits harmoniously into the existing and surrounding environment with easy access to U.S. 50, shopping, and other community facilities in the City of Placerville.
- Provides for various infrastructure improvements that would benefit the community including roadway improvements and sewer facilities.

### PROJECT CHARACTERISTICS

The applicant (Brilliant Management, LLC) is proposing a phased Tentative Subdivision Map and a Planned Development Overlay for subdivision of approximately 133 acres into 366 single-family parcels to be named Lumsden Ranch. Lot sizes would range from approximately 3,700 square feet to 15,000 square feet. The project would include a clubhouse and swimming pool for residents. Mass grading for house pads, vehicular accesses, drainage, utilities, and other site amenities is proposed. Approximately 75 acres (56 percent) of the project area would remain as open space with walking trails.

Vehicles would access the development from two directions. The primary road through the development (Canyon View Drive) would intersect with Barrett Drive at the southwest corner of the development and with Broadway northeast of the development. The northeast section of Canyon View Drive would be constructed through an adjacent parcel. Approximately 1,000 linear feet of Broadway would be widened at Canyon View

Drive for turn lane construction. No vehicle or emergency access is proposed for Wiltse Road.

The project would include construction of all required on-site utility infrastructure, including sewer and water lines, a stormwater collection system, and underground lines for all “dry utilities” (e.g., electricity, telephone, cable television). The project would be served by the City’s water, sewer, and storm drain system, and by Pacific Gas and Electric (PG&E) for electricity. The applicant is also considering an on-site propane storage and delivery system to serve the development.

Project-generated wastewater would flow by gravity to new sewer lines to be constructed by the applicant within the Lumsden Park access road and Wiltse Road. These sewer lines would join within Wiltse Road, and the combined sewer line would run beneath Wiltse Road to Broadway 0.25 mile northwest of the project area. The existing sewer line in Wiltse Road would be abandoned. The applicant will be required to reconnect the existing sewer connections to the new line and to repair the sections of Wiltse Road affected by the sewer line construction.

The City has determined that a portion of the existing sewer line that runs along Hangtown Creek between Wiltse Road and Main Street does not have adequate capacity to serve the project. A new 0.6-mile sewer trunk line constructed within Broadway would be needed to replace the existing section of sewer line and provide adequate capacity to serve the project. The existing sewer line would be abandoned. Also, existing sewer connections (i.e., laterals) for the businesses along this section of Broadway would need to be reconnected to the new sewer trunk line. A 900-foot section of replacement sewer trunk line is already being planned as a City project as a component of its planned Blairs Lane Bridge improvement project. The City will require the applicant to construct the remainder of the sewer trunk line within Broadway and the reconnected laterals along that section (Figure 2-4). The City is also considering whether to modify the existing rear lot line sewer line behind the existing homes along the north side of Barrett Drive and the west side of Country Club Drive by connecting it to the sewer line proposed for Canyon View Drive. The City would construct a connection between the existing sewer line at its upper end near the rear of 1803 Country Club Drive and the proposed Canyon View Drive sewer line. The exact alignment of the sewer connection line has not been determined.

The project would include a drainage system designed to channel project runoff to two on-site detention basins. No changes to the lake at Lumsden Park are proposed. The stormwater drainage system would be designed to comply with the El Dorado County Drainage Manual (El Dorado County 1995). The detention basins are intended to hold the volume of water delivered by a 100-year, 24-hour storm and regulate stormwater release rates so they do not exceed existing rates.

## **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

The following environmental impact and mitigation summary table (Table ES-1 Summary of Impacts and Mitigation Measures) provides an overview of the environmental effects of the project and the mitigation measures recommended to eliminate or reduce the impacts. The residual impact after mitigation is also identified. Detailed discussions of

each of the identified impacts and mitigation measures, including pertinent support data, can be found in the specific topic sections in Chapter 3 of this Draft EIR.

This Draft EIR has identified impacts associated with the following resources as significant:

- Land Use
- Public Services
- Utilities and Service Systems
- Hydrology and Water Quality
- Geology and Soils
- Biological Resources
- Cultural Resources
- Transportation and Circulation
- Air Quality
- Noise

This report identifies significant and unavoidable impacts related to utilities and service systems (incremental contribution to existing sewer problems during severe storm conditions), transportation and circulation (increased traffic congestion at local intersections and freeway ramps), air quality (increased construction pollutants and vehicle emissions), and noise (increased traffic noise when combined with future projects).

**Table ES-1. Summary of Impacts and Mitigation Measures**

Impacts		Significance	Mitigation Measures	Residual Significance
<b>3.1 Land Use</b>				
LU-1	The project would be consistent with the applicable policies of the General Plan Land Use Element.	Less than significant	None.	
LU-2	The project would be consistent with the Placerville Airport CLUP.	Less than significant	None.	
LU-3	The project would not create physical land use conflicts with existing land uses in neighboring areas.	Less than significant	None.	
<b>3.2 Population and Housing</b>				
PHE-1	The project would add 1,047 persons to Placerville’s population, but population projections would not be exceeded.	Less than significant	None.	
PHE-2	The project would add 361 housing units in the city, but Regional Housing Needs Plan would not be exceeded.	Less than significant	None.	
<b>3.3 Public Services</b>				
PS-1	The project would generate the demand for at least two new sworn officers, and would require additional equipment for the new officers and about 750 square feet of new or expanded police facilities.	Less than significant	None.	
PS-2	The project would increase calls to the El Dorado County Fire Protection District by about 10 to 15 calls annually, and would require additional staff, equipment, and a new fire station.	Significant	<b>Mitigation Measure PS-2:</b> Provide funding for new firefighting facilities, equipment, and staff required to serve the project.	Less than significant

**Table ES-1. Summary of Impacts and Mitigation Measures**

Impacts		Significance	Mitigation Measures	Residual Significance
PS-3	The project would reduce the risk of large wild fires within the project area, but would increase the risk of small wild fires due to the increase in public use within the project area.	Significant	<b>Mitigation Measure PS-3:</b> Implement a fire safe plan to minimize risk of wildland fire.	Less than significant
PS-4	Using Country Club Drive to access the project area could reduce response times for fire trucks on route to the project area.	Significant	<b>Mitigation Measure PS-4:</b> Implement Fire Safe Plan to offset increased fire protection response times from using Country Club Drive. Implement Mitigation Measure PS-3.	Less than significant
PS-5	New students generated by the project would exceed the student capacity of Louisiana Schnell Elementary School, Sierra School, and Edwin Markham Middle School.	Significant	<b>Mitigation Measure PS-5:</b> Assess developer fees to help pay for additional school facilities.	Less than significant
PS-6	The project would increase usage of City parks, but recreational components proposed for the project would partially offset increased park usage.	Significant	<b>Mitigation Measure PS-6:</b> Assess park fees to help offset deterioration of park facilities.	Less than significant
<b>3.4 Utilities and Service Systems</b>				
U-1	The project would increase water supply demand by 110 gallons per minute, but El Dorado Irrigation District would be capable of providing the required water, and existing and proposed facilities would have capacity to meet water demand and ensure adequate water pressure continues to be delivered to existing homes.	Less than significant	None.	

**Table ES-1. Summary of Impacts and Mitigation Measures**

Impacts		Significance	Mitigation Measures	Residual Significance
U-2	The project would increase wastewater volumes by 0.09 million gallons per day. Existing and proposed facilities would be capable of treating and conveying the increased volume of wastewater during typical weather conditions, but project wastewater could contribute incrementally to existing problems caused by infiltration/inflow during severe storm conditions.	Significant and unavoidable	None.	
U-3	The project would increase stormwater runoff by approximately 30 cubic feet per second, and one of the proposed detention basins would require modifications to adequately detain and convey the increased runoff.	Significant	<b>Mitigation Measure U-3:</b> Modify Detention Basin B to increase capacity.	Less than significant
U-4	Propane storage tanks in the project area would have a minor risk of explosion, resulting in minimal impacts to project residents.	Less than significant		
<b>3.5 Hydrology and Water Quality</b>				
HWQ-1	Construction activities could discharge pollutants into downstream drainages, resulting in adverse effects on surface water quality.	Significant	<b>Mitigation Measure HWQ-1:</b> Implement best management practices to control construction-related stormwater runoff, erosion, sedimentation, and off-site tracking of mud from vehicles.	Less than significant
HWQ-2	Off-site sewer line construction could result in discharge of pollutants from contaminated soil below Broadway to surface water, affecting water quality.	Significant	<b>Mitigation Measure HWQ-2:</b> Develop a Soil Management Plan for testing, handling, containment, and disposal of contaminated soils in the event that any are excavated from the area.	Less than significant



**Table ES-1. Summary of Impacts and Mitigation Measures**

Impacts		Significance	Mitigation Measures	Residual Significance
HWQ-3	Development in the project area would increase impervious surfaces, resulting in an increase in stormwater runoff, but would not adversely affect downstream surface waters.	Less than significant	None.	
HWQ-4	Stormwater runoff from the project area could convey urban pollutants and contaminants to downstream drainages, resulting in adverse effects on surface water quality.	Significant	<b>Mitigation Measure HWQ-4:</b> Implement a Water Quality Control Program.	Less than significant
HWQ-5	The project would have a minimal effect on groundwater quantity and quality.	Less than significant	None.	
<b>3.6 Geology and Soils</b>				
GS-1	Project construction would expose soils to wind and water erosion because of the substantial amount of grading activities on steep slopes.	Significant	<b>Mitigation Measure GS-1:</b> Implement best management practices during grading activities to control soil erosion.	Less than significant
GS-2	Development on or near existing mining features could result in damages to buildings and safety concerns for the public.	Significant	<b>Mitigation Measure GS-2:</b> Close and stabilize mining features during grading activities.	Less than significant
<b>3.7 Biological Resources</b>				
BR-1	Development of the project area would result in the loss of 70 acres of mixed oak forests and woodlands and a minor amount of riparian habitat.	Less than significant	None.	

**Table ES-1. Summary of Impacts and Mitigation Measures**

Impacts		Significance	Mitigation Measures	Residual Significance
BR-2	Development of the project area would result in the loss of 47 acres, or 51 percent, of tree canopy cover, but sufficient tree canopy cover would be retained to comply with the City ordinance (49 percent of the existing 69 percent canopy cover).	Less than significant	None.	
BR-3	Development of the project area would result in direct impacts to 0.1 acre of potential waters of the U.S.	Significant	<p><b>Mitigation Measure BR-3a:</b> Design roads and trails to minimize direct impacts to drainages and wetlands.</p> <p><b>Mitigation Measure BR-3b:</b> Comply with terms of a Clean Water Act (Section 404) permit for direct impacts to waters of the U.S. and implement a mitigation plan for permanent impacts.</p> <p><b>Mitigation Measure BR-3c:</b> Comply with terms of a Streambed Alteration Agreement and implement best management practices during construction.</p>	Less than significant
BR-4	Development of the project area could result in the loss of special status plants.	Significant	<p><b>Mitigation Measure BR-4a:</b> Avoid direct take of special status plant species during construction activities.</p> <p><b>Mitigation Measure BR-4b:</b> Implement a restoration plan for the loss of special status plants.</p>	Less than significant
BR-5	Development of the project area could result in the loss of habitat for and potential take of the valley elderberry longhorn beetle.	Significant	<p><b>Mitigation Measure BR-5a:</b> Avoid removal of elderberry shrubs during construction activities.</p> <p><b>Mitigation Measure BR-5b:</b> Transplant or replace elderberry shrubs that cannot be avoided and establish a conservation area.</p>	Less than significant

**Table ES-1. Summary of Impacts and Mitigation Measures**

Impacts		Significance	Mitigation Measures	Residual Significance
BR-6	Development of the project area would remove low quality red-legged frog habitat, but would not result in adverse impacts to California red-legged frog.	Less than significant	None.	
BR-7	Development of the project area would result in the loss of habitat for and potential take of the northwestern pond turtle.	Significant	<b>Mitigation Measure BR-7a:</b> Avoid direct impacts to northwestern pond turtles during construction activities. <b>Mitigation Measure BR-7b:</b> Provide signs in sensitive areas along trails to inform the public about northwestern pond turtles.	Less than significant
BR-8	Development of the project area would result in the loss of habitat for and potential take of special status birds, nesting raptors, and nesting migratory and resident birds.	Significant	<b>Mitigation Measure BR-8:</b> Avoid impacts to nest sites during construction activities.	Less than significant
BR-9	Development of the project area would result in the loss of foraging and roosting habitat and potential take of special status bat species.	Significant	<b>Mitigation Measure BR-9:</b> Avoid impacts to roosting bats and their young during construction.	Less than significant
<b>3.8 Cultural Resources</b>				
CR-1	Ground disturbance could affect known cultural resources.	Less than significant	<b>Mitigation Measure CR-1:</b> Document surface artifacts at site PL-Lum-01 and donate to El Dorado Miwok tribe.	Less than significant

**Table ES-1. Summary of Impacts and Mitigation Measures**

Impacts		Significance	Mitigation Measures	Residual Significance
CR-2	Ground disturbance could affect undocumented cultural resources, including human remains.	Significant	<p><b>Mitigation Measure CR-2a:</b> Implement construction monitoring by a qualified archaeologist for the protection of cultural resources, including human remains.</p> <p><b>Mitigation Measure CR-2b:</b> Implement construction monitoring by a qualified Native American for the protection of culturally sensitive areas, including human remains.</p> <p><b>Mitigation Measure CR-2c:</b> Implement inadvertent discovery measures for the protection of cultural resources, including human remains.</p>	Less than significant
CR-3	Ground disturbance could affect undocumented paleontological resources.	Significant	<p><b>Mitigation Measure CR-3:</b> Implement inadvertent discovery measures for the protection of paleontological resources.</p>	Less than significant
<b>3.9 Aesthetics</b>				
A-1	The project would change views from several private homes, but would not block views from public viewpoints or private homes.	Less than significant	None.	
A-2	The project would change the visual character of the project area, but would not degrade the visual character of the project area.	Less than significant	None.	
A-3	The project would change views of the project area from off-site locations, but would not substantially degrade the quality of public or private views.	Less than significant	None.	
<b>3.10 Traffic and Circulation</b>				
TT-1	The project would unacceptably degrade traffic operations at the Schnell School Road/U.S. 50 westbound ramps intersection.	Significant	<p><b>Mitigation Measure TT-1:</b> Install all-way stop sign control at the Schnell School Road/ U.S. 50 westbound ramps intersection.</p>	Significant and unavoidable

Table ES-1. Summary of Impacts and Mitigation Measures

Impacts		Significance	Mitigation Measures	Residual Significance
TT-2	The project would unacceptably exacerbate degraded traffic operations at the U.S. 50 eastbound ramps/Broadway intersection.	Significant	<b>Mitigation Measure TT-2:</b> Pay a fair-share contribution toward construction of a traffic signal at the U.S. 50 eastbound ramps/Broadway intersection and reconfiguration of the adjacent access.	Significant and unavoidable
TT-3	The project would unacceptably degrade traffic operations at the Schnell School Road/U.S. 50 westbound ramps intersection.	Significant	<b>Mitigation Measure TT-3:</b> Install all-way stop sign control at the Schnell School Road/ U.S. 50 westbound ramps intersection.	Significant and unavoidable
TT-4	The project would unacceptably degrade traffic operations at the Schnell School Road/U.S. 50 eastbound ramps intersection.	Significant	<b>Mitigation Measure TT-4:</b> Install all-way stop sign control at the Schnell School Road/ U.S. 50 eastbound ramps intersection.	Significant and unavoidable
TT-5	The proposed and related projects would unacceptably degrade traffic operations throughout the Schnell School Road/Broadway/Wiltse Road/U.S. 50 ramps roadway system (i.e., the Schnell School Road System).	Significant	<p><b>Mitigation Measure TT-5:</b> Pay a fair-share contribution toward construction of one of the following alternative improvement plans for the Schnell School Road System.</p> <ul style="list-style-type: none"> <li>▪ <i>Alternative 1:</i> Implement three traffic signals and realign Wiltse Road to the east to intersect Broadway opposite Schnell School Road.</li> <li>▪ <i>Alternative 2:</i> Implement three roundabouts: (1) a single-lane roundabout at the Schnell School Road/U.S. 50 westbound ramps intersection; (2) a five-legged two-lane roundabout including the following approaches: Broadway, Schnell School Road, the U.S. 50 eastbound off-ramp, and the U.S. 50 eastbound on-ramp; and (3) a three-legged single-lane roundabout at the Wiltse Road/Broadway intersection.</li> </ul>	Significant and unavoidable

**Table ES-1. Summary of Impacts and Mitigation Measures**

Impacts		Significance	Mitigation Measures	Residual Significance
			<ul style="list-style-type: none"> <li>▪ <i>Alternative 3:</i> Implement three traffic signals, restrict Wiltse Road to right turns in/out only (no realignment of Wiltse Road), and widen Schnell School Road within its undercrossing of U.S. 50.</li> <li>▪ <i>Alternative 4:</i> Implement three traffic signals, restrict Wiltse Road to right turns in/out only (no realignment of Wiltse Road).</li> </ul>	
TT-6	The proposed and related projects would unacceptably degrade traffic operations at the Mosquito Road/Broadway intersection.	Significant	<b>Mitigation Measure TT-6:</b> Pay a fair-share contribution toward construction of a traffic signal at the Mosquito Road/Broadway intersection.	Significant and unavoidable
TT-7	The proposed and related projects would unacceptably degrade traffic operations at the Cedar Ravine Road/Main Street intersection.	Significant	<b>Mitigation Measure TT-7:</b> Construct a single-lane roundabout at the Cedar Ravine Road/Main Street intersection.	Less than significant
TT-8	The proposed and related projects would unacceptably degrade traffic operations at the U.S. 50 eastbound ramps/Broadway intersection.	Significant	<b>Mitigation Measure TT-8:</b> Pay a fair-share contribution toward construction of a traffic signal at the U.S. 50 eastbound ramps/Broadway intersection, and reconfiguration/widening of its approaches/departures.	Significant and unavoidable
TT-9	The proposed and related projects would unacceptably degrade traffic operations at the Bedford Avenue/U.S. 50 intersection.	Significant	<b>Mitigation Measure TT-9:</b> Pay a fair-share contribution toward construction of widening of the westbound approach to the Bedford Avenue/U.S. 50 intersection to include an exclusive right-turn lane.	Significant and unavoidable
TT-10	The proposed and related projects would unacceptably degrade traffic operations at the Point View Drive/U.S. 50 westbound ramps intersection.	Significant	<b>Mitigation Measure TT-10:</b> Pay a fair-share contribution toward the construction of a roundabout at the Point View Drive/U.S. 50 westbound ramps intersection.	Significant and unavoidable

**Table ES-1. Summary of Impacts and Mitigation Measures**

Impacts		Significance	Mitigation Measures	Residual Significance
TT-11	The proposed and related projects would unacceptably degrade traffic operations at the Point View Drive/U.S. 50 eastbound ramps intersection.	Significant	<b>Mitigation Measure TT-11:</b> Pay a fair-share contribution toward the construction of a roundabout at the Point View Drive/U.S. 50 eastbound ramps intersection.	Significant and unavoidable
TT-12	The project would result in an inconsistency with a General Plan policy.	Significant	<b>Mitigation Measure TT-12a:</b> Construct a roadway connection between the project and the Eskaton at Spanish Hill project as described in the project alternative. <b>Mitigation Measure TT-12b:</b> Amend the City's Master Street Plan in such a way that the Lumsden Ranch Project is consistent with the amended plan.	Less than significant
TT-13	Project access, provided by Canyon View Drive, may not accommodate all modes of travel.	Significant	<b>Mitigation Measure TT-13a:</b> Construct the Canyon View Drive/Broadway intersection with stop-sign control on Canyon View Drive and with two lanes on Canyon View Drive approaching Broadway, one left-turn lane and one right-turn lane. <b>Mitigation Measure TT-13b:</b> Construct Canyon View Drive with a Class II bike lane in both directions between Broadway and the project's first internal intersection. <b>Mitigation Measure TT-13c:</b> Construct Canyon View Drive with a sidewalk on both sides of the street between Broadway and the project's first internal intersection.	Less than significant

**Table ES-1. Summary of Impacts and Mitigation Measures**

Impacts		Significance	Mitigation Measures	Residual Significance
TT-14	The project would not provide adequate pedestrian access to Lumsden Park or Louisiana Schnell Elementary School.	Significant	<p><b>Mitigation Measure TT-14a:</b> Construct a pedestrian-only access to Wiltse Road to/from the project, and construct a sidewalk along the east side of Wiltse Road between the project and Lumsden Park.</p> <p><b>Mitigation Measure TT-14b:</b> Pay a fair-share contribution toward construction of a path/sidewalk along Wiltse Road between Lumsden Park and Broadway.</p>	Significant and unavoidable
TT-15	The project would encourage through-traffic within a residential neighborhood.	Significant	<p><b>Mitigation Measure TT-15:</b> Construct traffic-calming devices along Canyon View Drive as approved by the City's Public Works Department.</p>	Less than significant
TT-16	The project would result in non-standard roadway improvements.	Significant	<p><b>Mitigation Measure TT-16a:</b> Revise the proposed site plan to include a 56-foot-wide right-of-way for Canyon View Drive between Broadway and the first internal intersection within the project.</p> <p><b>Mitigation Measure TT-16b:</b> Review design plans for all new and reconstructed roadways to ensure applicable design standards are satisfied, to the satisfaction of the City's Public Works Department and/or Caltrans, as appropriate.</p>	Less than significant
TT-17	The project may increase hazards due to a design feature such as sharp curves or dangerous intersections.	Significant	<p><b>Mitigation Measure TT-17:</b> Review design plans for all new and reconstructed roadways to ensure applicable design standards are satisfied, to the satisfaction of the City's Public Works Department and/or Caltrans, as appropriate.</p>	Less than significant
TT-18	The project may increase hazards due to a design feature such as unnecessary or inappropriate crosswalk and trailhead locations.	Significant	<p><b>Mitigation Measure TT-18:</b> Revise the site plan to eliminate unnecessary crosswalks and to relocate inappropriate trailhead locations.</p>	Less than significant



**Table ES-1. Summary of Impacts and Mitigation Measures**

Impacts		Significance	Mitigation Measures	Residual Significance
TT-19	The project may fail to provide adequate sight distances at intersections and/or driveways.	Significant	<b>Mitigation Measure TT-19:</b> Review design plans for all new and reconstructed roadways to ensure applicable design standards are satisfied, to the satisfaction of the City's Public Works Department and/or Caltrans, as appropriate.	Less than significant
TT-20	The project would create demand for transit services above the capacity that is provided or planned.	Significant	<b>Mitigation Measure TT-20a:</b> Construct a bus stop within 250 feet of the intersection of Broadway with Canyon View Drive. <b>Mitigation Measure TT-20b:</b> Provide service to the bus stop constructed at the Canyon View Drive/Broadway intersection.	Less than significant
TT-21	The project may interfere with planned bicycle facilities.	Significant	<b>Mitigation Measure TT-21a:</b> Include provisions for Class II bike lanes on Broadway at its intersection with Canyon View Drive. <b>Mitigation Measure TT-21b:</b> Include provisions for Class II bike lanes on Mosquito Road and Schnell School Road as part of the design for mitigation measures at the following intersections: Schnell School Road/U.S. 50 westbound ramps, Schnell School Road/U.S. 50 eastbound ramps, Schnell School Road/Broadway, and Mosquito Road/Broadway.	Less than significant
TT-22	The project may interfere with planned pedestrian facilities.	Significant	<b>Mitigation Measure TT-22a:</b> Include provisions for sidewalks in the improvements constructed on Broadway at its intersection with Canyon View Drive. <b>Mitigation Measure TT-22b:</b> Include provisions for sidewalks in the improvements that are ultimately constructed within the Schnell School Road System.	Less than significant

**Table ES-1. Summary of Impacts and Mitigation Measures**

Impacts		Significance	Mitigation Measures	Residual Significance
TT-23	The project would create temporary but prolonged construction-related impacts, potentially including congestion.	Significant	<b>Mitigation Measure TT-23:</b> Develop and implement a construction traffic management plan to the satisfaction of the City's Public Works department.	Less than significant
<b>3.11 Air Quality</b>				
AQ-1	The proposed project would not conflict with the regional air quality management plans.	Less than significant	None.	
AQ-2	Construction activities would generate dust and produce vehicle emissions that would exceed established emissions thresholds for ROG, NOx, and PM10, and grading activities could release asbestos fibers.	Significant	<b>Mitigation Measure AQ-2:</b> Comply with District Rules 215, 223-1, 223-2, and 224 to reduce construction dust that may contain asbestos through water application, stabilizing exposed soil, covering loads, periodic cleaning of paved areas, establishing speed limits, and implement EDCAQMD mitigation measures to control equipment exhaust emissions.	Significant and unavoidable
AQ-3	Project traffic and residential operations would result in long-term stationary and mobile source emissions that would exceed air quality thresholds for ROG, and could violate PM10 standards.	Significant	Mitigation Measure AQ-3: Design homes and clubhouse to include only propane-burning fireplaces.	Less than significant
AQ-4	Project traffic would increase CO concentrations at intersections, but would not expose sensitive receptors to substantial CO concentrations.	Less than significant	None.	
AQ-5	The project would not create objectionable odors.	Less than significant	None.	

**Table ES-1. Summary of Impacts and Mitigation Measures**

Impacts		Significance	Mitigation Measures	Residual Significance
AQ-6	Project-generated construction and operational emissions would exceed established thresholds for ROG, NOx, and PM10, and grading activities could release asbestos fibers. The project would therefore have a cumulatively considerable contribution to a significant regional cumulative air quality impact.	Potentially significant	<p><b>Mitigation Measure AQ-6a:</b> Comply with District Rules 215, 223-1, 223-2, and 224 to reduce construction dust that may contain asbestos through water application, stabilizing exposed soil, covering loads, periodic cleaning of paved areas, and establishing speed limits, and implement EDCAQMD mitigation measures to control equipment exhaust emissions.</p> <p>Implement Mitigation Measure AQ-2.</p> <p><b>Mitigation Measure AQ-6b:</b> Design homes and clubhouse to include only propane-burning fireplaces.</p> <p>Implement Mitigation Measure AQ-3.</p>	Significant and unavoidable
<b>3.12 Noise</b>				
N-1	Project construction would result in temporary noise impacts that could affect adjacent and project residences.	Significant	<p><b>Mitigation Measure N-1a:</b> Limit construction to the hours between 7 a.m. and 7 p.m. Monday through Friday, and 8 a.m. and 5 p.m. Saturday.</p> <p><b>Mitigation Measure N-1b:</b> Locate portable (fixed) construction equipment (such as compressors and generators) and construction staging areas away from existing residences.</p> <p><b>Mitigation Measure N-1c:</b> Post signs at the construction site that include permitted construction days and hours, expected timeframe for construction, a day and evening contact number for the job site, and a contact number for the City of Placerville for complaints about construction noise.</p>	Less than significant

**Table ES-1. Summary of Impacts and Mitigation Measures**

Impacts		Significance	Mitigation Measures	Residual Significance
N-2	The project would expose residences to noise from operation of the Placerville Airport, but aircraft noise would be below 55 dB.	Less than significant	None.	
N-3	Project traffic would increase traffic noise levels in the project vicinity, but would not expose existing residences to a substantial increase in traffic noise levels.	Less than significant	None.	
N-4 (Cumulative)	Project traffic, in combination with cumulative project traffic, would substantially increase traffic noise levels along Airport Road and Barrett Drive in 2025.	Significant	<b>Mitigation Measure N-4 (Cumulative):</b> Provide opportunities for alternative forms of transportation.	Significant and unavoidable
<b>4.0 Cumulative Impacts</b>				
See Chapter 4.0 for the analysis of cumulative impacts.				
<b>5.0 Climate Change</b>				
CC-1	Project construction would generate more than 11 metric tons, and project operation would generate more than 939 metric tons, of CO2 equivalents per year.	Significant	<b>Mitigation Measure CC-1a:</b> Implement measures to reduce GHG emissions from construction activities. <b>Mitigation Measure CC-1b:</b> Implement measures to reduce GHG emissions from energy use. <b>Mitigation Measure CC-1c:</b> Implement measures to reduce GHG emissions from transportation.	Significant and unavoidable

## SCOPING PROCESS

The City of Placerville distributed a Notice of Preparation in March 2007 to federal, state, and local agencies and other interested parties to solicit comments on the project and scope of the EIR (see Appendix A). A public scoping meeting was held on April 11, 2007, to present the project to the public and solicit additional feedback. Concerns raised by agencies and the public during the scoping period were considered during preparation of the Draft EIR and are summarized below. Comment letters, a more detailed summary of the scoping comments, and the disposition of the scoping comments, are provided in Appendix B. A copy of the City's Initial Study is provided in Appendix A.

The following environmental effects were identified as concerns by the agencies and the public:

- Land Use: Compatibility with Placerville Airport and nearby residences.
- Transportation and Circulation: Effects of increased traffic on local streets and intersections, and U.S. 50.
- Noise: Effects on nearby residents.
- Air Quality: Increased pollutants from grading and construction activities and traffic emissions.
- Utilities and Service Systems: Infrastructure capacity and water supply.
- Public Services: Demand on emergency service providers; emergency vehicle access to the project; risk of wildland fires.
- Recreation: Demand on City parks, including Lumsden Park.
- Hydrology and Water Quality: Effects of increased runoff from the project; effects of construction and urban runoff on water quality.
- Biological Resources: Effects on special status plants and wildlife; changes to wildlife movement; effects on nearby residents from wildlife displacement; tree removal.
- Cultural Resources: Effects on Native American resources.
- Public Health: Potential for mosquito breeding in detention basins.

## AREAS OF KNOWN CONTROVERSY

No issues of known controversy have been identified for this project. Of the issues identified above, impacts related to traffic, noise, public services, cultural resources, biological resources, and land use compatibility are likely to continue to be of concern to Draft EIR reviewers.

## ISSUES TO BE RESOLVED

The primary issue to be resolved is whether a public street connecting Lumsden Ranch to the City street system west of Lumsden Ranch can be provided by the project. The City's Master Street Plan schematically shows several roadways connecting the project area to other parts of Placerville, including a street connecting Lumsden Ranch to the City street system on the west. This street is schematically shown crossing through the

western project area boundary and connecting with a City street in the area currently being developed as Eskaton at Spanish Hill.

The City has expressed a strong desire for the project to include a street connecting the west side of Lumsden Ranch to the City street system to the west. Such a street would likely be a short street through the western project boundary (southwest of Lumsden Park) to Heritage Lane. Heritage Lane connects to Blairs Lane in the Eskaton development, which provides direct access to Broadway. Heritage Lane is an emergency access road and would need to be upgraded to meet City street standards.

The applicant and Lakemont Homes (developer of Eskaton) have negotiated a memorandum of understanding to allow the applicant to build a street connection from Lumsden Ranch to Heritage Lane. This EIR evaluates a project alternative (Blairs Lane Connection Alternative) that includes this street connection at full project level, thereby allowing the City to consider approving this street connection or requiring it as a condition of project approval.

## **PROJECT ALTERNATIVES SUMMARY**

Two land use alternatives (including the No Project Alternative), and a third access road alternative were evaluated in this EIR. One land use alternative is the Reduced Density Alternative, which includes one-third fewer homes than proposed for the project. The other is the No Project Alternative, which includes 366 homes built consistent with the current zoning designation, but without a Planned Development Overlay.

The Blairs Lane Connection Alternative includes a public street connecting the western edge of Lumsden Ranch across Eskaton property to a connection with Blairs Lane in the Eskaton community via Heritage Lane. This alternative is being considered because it would provide consistency with the City's Master Street Plan, and would provide a third access route to Lumsden Ranch. The EIR evaluates the Blairs Lane Connection Alternative at full project level, thereby allowing the City to consider approving this street connection or requiring it as a condition of project approval.

The Reduced Density Alternative was found to be the environmentally superior alternative. This alternative, however, would not meet all project objectives and may not be feasible for the applicant to construct because it may not generate enough revenue to support construction of the required infrastructure, and may require housing prices that are higher than market prices. It may also be legally infeasible. Pursuant to Government Code section 65589.5(j), a city cannot legally require a lower density for a project that is consistent with zoning and general plan densities unless the city makes specific findings that the project will have a "specific, adverse impact upon the public health and safety." The proposed project would not result in this type of impact.

Table ES-2 provides a summary comparison of the environmental effects of the project and each alternative. The feasibility of each alternative is discussed in Chapter 6 Alternatives.

**Table ES-2. Comparison of Alternatives to the Proposed Project**

Proposed Project	No Project	Reduced Density Alternative	Blairs Lane Connection Alternative
<b>Description</b>			
<ul style="list-style-type: none"> <li>▪ 366 single-family residential units</li> <li>▪ Planned Development Overlay</li> <li>▪ Clubhouse and swimming pool</li> <li>▪ 75 acres of open space</li> <li>▪ Canyon View Drive extension to Broadway</li> <li>▪ Two vehicle access roads to project area</li> <li>▪ All required on-site and off-site infrastructure</li> <li>▪ Sprinklers in all homes and clubhouse</li> </ul>	<ul style="list-style-type: none"> <li>▪ 366 single-family residential units</li> <li>▪ No Planned Development Overlay</li> <li>▪ No clubhouse or swimming pool</li> <li>▪ Smaller, noncontiguous open space areas</li> <li>▪ Conservation easements over portions of private parcels.</li> <li>▪ Canyon View Drive extension to Broadway</li> <li>▪ Two vehicle access roads to project area</li> <li>▪ All required on-site and off-site infrastructure</li> <li>▪ Sprinklers in all homes</li> </ul>	<ul style="list-style-type: none"> <li>▪ 243 single-family residential units</li> <li>▪ Planned Development Overlay</li> <li>▪ Clubhouse and swimming pool</li> <li>▪ More open space areas</li> <li>▪ Canyon View Drive extension to Broadway</li> <li>▪ Two vehicle access roads to project area</li> <li>▪ All required on-site and off-site infrastructure</li> <li>▪ Sprinklers in all homes and clubhouse</li> </ul>	<ul style="list-style-type: none"> <li>▪ Same land development as project</li> <li>▪ New road connection from project to Blairs Lane</li> <li>▪ No sprinklers in homes</li> </ul>

**Table ES-2. Comparison of Alternatives to the Proposed Project**

Proposed Project	No Project	Reduced Density Alternative	Blairs Lane Connection Alternative
<b>Results of Analysis</b>			
<p><u>Advantages</u></p> <ul style="list-style-type: none"> <li>▪ Meets all project objectives</li> </ul> <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <li>▪ Traffic impacts (SU)</li> <li>▪ Air quality impacts – construction (SU)</li> <li>▪ Sewer capacity under severe storm conditions (SU)</li> </ul>	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <li>▪ None</li> </ul> <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <li>▪ Does not meet all project objectives</li> <li>▪ No land use efficiencies gained from Planned Development Overlay</li> <li>▪ Smaller, noncontiguous open space areas</li> <li>▪ Greater impacts on biological resources</li> <li>▪ More grading and alteration of ridgelines</li> <li>▪ Some buildings more visible from off-site locations</li> <li>▪ No on-site recreation</li> </ul>	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <li>▪ Less traffic – may reduce some SU traffic impacts</li> <li>▪ Less vehicle noise</li> <li>▪ Less demand for public services</li> <li>▪ Less construction and vehicle emissions</li> <li>▪ Less habitat conversion</li> <li>▪ Less effect on biological resources</li> <li>▪ Less visible</li> <li>▪ Would not result in new significant impacts</li> </ul> <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <li>▪ Would not meet project objectives</li> <li>▪ Might be economically infeasible</li> <li>▪ Might be legally infeasible</li> <li>▪ Would not provide enough housing units to meet the City’s planned population increase</li> </ul>	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <li>▪ Meets all project objectives</li> <li>▪ Consistent with City’s Master Street Plan</li> <li>▪ Provides third access road to project area</li> </ul> <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <li>▪ Would result in similar impacts within the Lumsden Ranch development area</li> <li>▪ Would convert slightly more habitat</li> <li>▪ Would not improve police and fire emergency response times</li> </ul>



**Table ES-2. Comparison of Alternatives to the Proposed Project**

Proposed Project	No Project	Reduced Density Alternative	Blairs Lane Connection Alternative
<b>Conclusions</b>			
<ul style="list-style-type: none"> <li>▪ Meets all project objectives</li> </ul>	<ul style="list-style-type: none"> <li>▪ Does not reduce any SU impacts to LTS</li> <li>▪ Would result in a significant aesthetic impact that would not occur under the project.</li> <li>▪ Increases several environmental effects</li> <li>▪ Does not meet all project objectives</li> </ul>	<ul style="list-style-type: none"> <li>▪ Environmentally superior alternative</li> <li>▪ May reduce some SU traffic impacts</li> <li>▪ Lessens several environmental effects</li> <li>▪ Would not result in new significant impacts</li> <li>▪ Would not meet all project objectives</li> <li>▪ Might be economically infeasible</li> <li>▪ May be legally infeasible because the proposed project would not result in any specific, adverse impact on public health or safety</li> <li>▪ Would not provide enough housing units to meet the City's planned population increase</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consistent with City's Master Street Plan</li> <li>▪ Provides third access road to project area</li> <li>▪ Similar impacts to project</li> <li>▪ Would meet all project objectives</li> </ul>

LTS = Less than significant  
 SU = Significant and unavoidable



# CHAPTER 1

## INTRODUCTION

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The City of Placerville is the lead agency responsible for preparation of this Environmental Impact Report (EIR). The EIR discusses the environmental effects of approving a phased Tentative Subdivision Map and a Planned Development Overlay for subdivision of approximately 133 acres located within the City into 366 single-family parcels to be named Lumsden Ranch (maps are provided in Chapter 2).

This chapter provides an overview of the EIR and the California Environmental Quality Act (CEQA) review process.

### 1.1 PURPOSE AND SCOPE OF EIR

The purpose of this EIR is to provide decision-makers, public agencies, and the general public with information on the significant environmental effects of the project and identify feasible alternatives and mitigation measures to avoid or reduce those effects. The EIR describes the anticipated effects of the project on the following resources:

- Land Use
- Population, Housing, and Employment
- Public Services
- Utilities and Service Systems
- Hydrology and Water Quality
- Geology and Soils
- Biological Resources
- Cultural Resources
- Aesthetics
- Transportation and Circulation
- Air Quality
- Noise

### 1.2 INTENDED USES OF THE EIR

The Placerville City Council will use the Final EIR to consider the project's significant environmental effects, mitigation measures, and alternatives in the process of deciding whether to approve the requested Tentative Subdivision Map and Planned Development Overlay. Responsible and trustee agencies may also use the EIR as needed for subsequent discretionary actions. The following list includes the possible permits or discretionary actions and the agencies responsible for issuing the permits or approving the action. These agencies may use the EIR for their review or approval process.

U.S. Army Corps of Engineers

- Clean Water Act Section 404 Permit

Central Valley Regional Water Quality Control Board

- Water Quality Certification (Section 401 of the Clean Water Act)
- Stormwater National Pollutant Discharge Elimination System (NPDES) Permit

U.S. Fish and Wildlife Service

- Federal Endangered Species Act Compliance

California Department of Fish and Game

- California Endangered Species Act Compliance
- Streambed Alteration Agreement

El Dorado County Fire Protection District

- Fire Safe Plan approval

California Department of Forestry and Fire Protection

- Timber Harvest Plan approval
- Conversion Permit

### **1.3 EIR PROCESS AND PUBLIC INVOLVEMENT**

The EIR has been prepared in accordance with CEQA (Public Resources Code Sections 21000 et seq.) and the CEQA Guidelines (14 California Code of Regulations Sections 15000 et seq). The EIR has also been prepared pursuant to City of Placerville CEQA requirements.

#### **1.3.1 Overview of EIR Process**

In compliance with Section 15082 of the CEQA Guidelines, the City circulated a Notice of Preparation (NOP) and Initial Study (IS) on March 26, 2007, to interested agencies, groups, and individuals, including the State Clearinghouse. The NOP was intended to encourage interagency communication and provide sufficient background information about the project to enable agencies, organizations, and individuals to respond with specific comments on the scope and content of the EIR.

A public scoping meeting was held at the Placerville Town Hall on April 11, 2007. All comments received during the NOP public notice period and scoping meeting were considered during the preparation of this Draft EIR. The NOP/IS, a memo summarizing the comments received during the NOP public notice period, and copies of the written comments received are included in Appendices A and B.

The public will be provided a 45-day period to review and provide comments on the Draft EIR. The public review period closes on April 15, 2009.

Within this 45-day review period, the City will hold a public hearing to present the document and solicit comments. Comments received by the City will be considered in preparing the Final EIR. Copies of comments, and responses to comments, will be included in the Final EIR.

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## 1.4 EIR SCOPE AND ORGANIZATION

The Draft EIR is organized into seven main chapters:

- **Chapter ES, Executive Summary:** provides a summary of the project and the environmental analyses for each resource.
- **Chapter 1, Introduction:** provides an overview of the EIR.
- **Chapter 2, Project Description:** provides a detailed description of the proposed project and identifies potential permits and approvals necessary for project implementation.
- **Chapter 3, Environmental Setting, Impacts, and Mitigation Measures:** describes the regulatory and environmental settings, provides an analysis of impacts on resources potentially affected by project implementation, and identifies mitigation measures to reduce significant effects.
- **Chapter 4, Cumulative Impacts:** provides a discussion of cumulative impacts of the project.
- **Chapter 5, Global Climate Change Analysis:** defines climate change and greenhouse gases, presents the current legislation and programs to address climate change in California, analyzes potential impacts to climate change from the project, and provides mitigation measures to reduce greenhouse gas emissions.
- **Chapter 6, Alternatives:** describes and evaluates feasible alternatives that reduce one or more significant effects of the project.
- **Chapter 7, Other Sections Required by CEQA:** provides a discussion of significant irreversible environmental changes, a list of significant and unavoidable impacts, and a discussion of the potential growth-inducing effects of the project.



# CHAPTER 2

## PROJECT DESCRIPTION

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### 2.1 PROJECT LOCATION AND SETTING

The 133-acre project area is located in the easternmost portion of the City of Placerville, south of Broadway and north of Barrett Drive, at the southern end of Wiltse Road (Figure 2-1). The project area is located on the northwest slope of Texas Hill, and includes canyons and hillsides that drain to an unnamed tributary of Hangtown Creek. Site elevations range from 2,000 feet above mean sea level (msl) near the northwestern project area boundary to 2,400 feet above msl along the southern boundary.

Lumsden Ranch is east of and adjacent to the City-approved 113-parcel senior citizen-oriented Eskaton at Spanish Hill project, and a 58-parcel single-family subdivision development called Cedar Bluffs. Existing single-family residential uses are located to the south and northwest of the project area. Mostly vacant land designated and zoned for residential and commercial uses is located northeast of the project area. The Placerville general aviation airport is located approximately 1,200 feet southeast of the project area.

The project area currently contains five single-family residences and outbuildings and is primarily vegetated with mixed hardwood forest interspersed with woodland and chaparral. Several ephemeral drainages, seeps, and springs are located within the project area. The El Dorado Canal, a historic water conveyance ditch, runs parallel to the southern project boundary within the project area.

The project would include development of a street (Canyon View Drive) and utility corridor through an adjacent parcel northeast of the project area (Figure 2-1). This road and utility corridor generally follows an existing unpaved private road that crosses an unnamed tributary of Hangtown Creek and travels up a ridgeline toward the project area.

### 2.2 PROJECT OBJECTIVES

The project objectives are to create a residential development that:

- Is consistent with the policies of the City's General Plan
- Maximizes housing stock consistent with project area's general plan land use designation and zoning to address regional housing needs
- Uses a Planned Development Overlay to allow for more flexible design than is permissible under the conventional zoning codes
- Retains approximately 50 percent of the project area as open space that will preserve existing biological habitat and canopy cover, with much of the land undisturbed by construction activities
- Is compatible with adjacent land uses
- Is an in-fill project that fits harmoniously into the existing and surrounding environment with easy access to U.S. 50, shopping, and other community facilities in the City of Placerville

- Provides for various infrastructure improvements that would benefit the community including roadway improvements and sewer facilities

## **2.3 PROJECT CHARACTERISTICS**

### **2.3.1 Tentative Map and Planned Development Overlay**

The applicant (Brilliant Management, LLC) is proposing a phased Tentative Subdivision Map and a Planned Development Overlay for subdivision of approximately 133 acres into 366 single-family parcels to be named Lumsden Ranch (Figure 2-2). Lot sizes would range from approximately 3,700 square feet to 15,000 square feet. The project would include a clubhouse and swimming pool for residents. Mass grading for house pads, vehicular accesses, drainage, utilities, and other amenities is proposed. The residential units and clubhouse would occupy 42 acres of land (32 percent of the project area), and the roadway system would occupy 16 acres of land (12 percent of the project area). The remaining 75 acres (56 percent) of the project area would remain as open space with walking trails.

The five existing residences and outbuildings within the project area would be removed. The applicant is proposing the following minimum setbacks: 5 feet of side yard, 10 feet of front yard, 15 feet of rear yard, and 20 feet between the garage and the street.

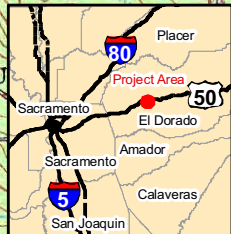
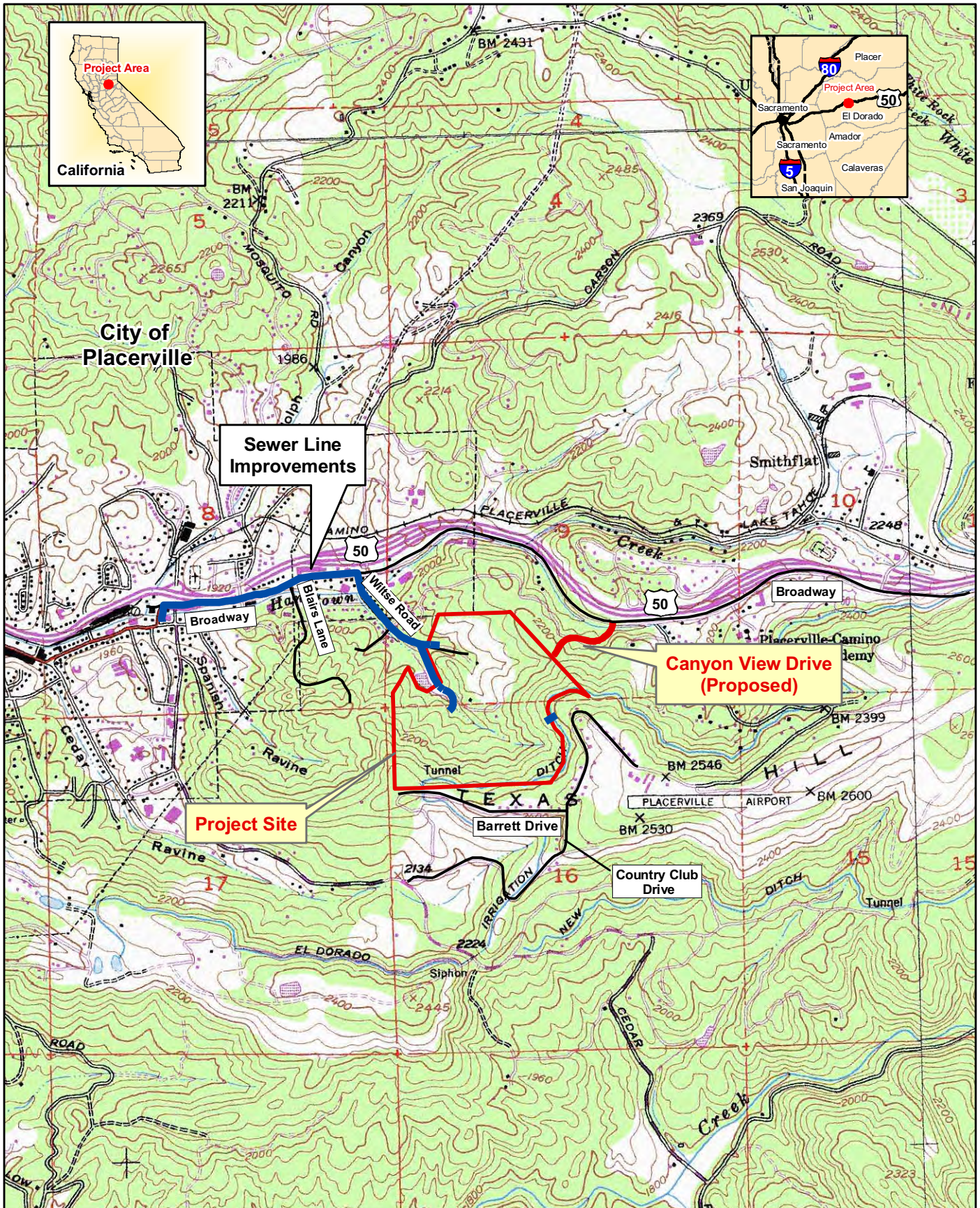
The project has been designed to balance excavation and fill. All excavated materials would be used on-site, and no fill material other than commercially available aggregate material (i.e., sand and gravel) used for road base and utility line backfill would be imported onto the site. The aggregate material may also be generated from material excavated on-site during project grading, reducing or eliminating the need to import the material.

The hillside and canyon topography of the project area would require retaining walls along many cut and fill areas, including roadways. The applicant is proposing keystone walls or similar types for road embankments. Retaining walls along the yard lines of many homes would be keystone, rockery, or other materials acceptable to the City, depending on the height of the wall. Where high retaining walls are required, landscaped terraces would be included within the walls so the retaining walls would be visually covered by trees and other vegetation within a few years.

### **2.3.2 Circulation**

Vehicles would access the development from two directions. The primary road through the development (Canyon View Drive) would intersect with Barrett Drive at the southwest corner of the development and with Broadway northeast of the development. The northeast section of Canyon View Drive would be constructed through an adjacent parcel (see Figure 2-2). Approximately 1,000 linear feet of Broadway would be widened at Canyon View Drive for turn lane construction. The City determined that Wiltse Road cannot feasibly provide vehicle access to Lumsden Ranch for several reasons. Therefore, no vehicle or emergency access is proposed for Wiltse Road (see Environmental Impact Report [EIR] Section 6.2.1 for further discussion).





**Sewer Line Improvements**

**Canyon View Drive (Proposed)**

**Project Site**

Feet  
0 500 1,000 2,000

USGS 7.5' Quadrangles  
Placerville 1949,  
Photorevised 1973  
Section: 9 & 16, Township: 10N, Range: 11E

N  
1:24,000

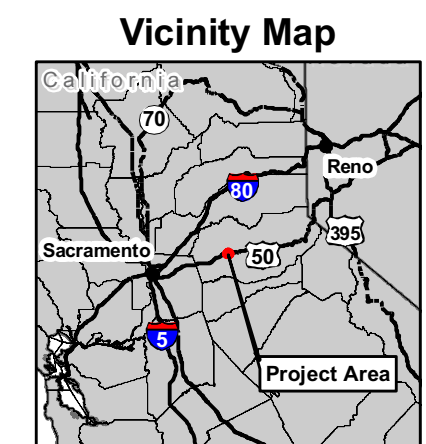
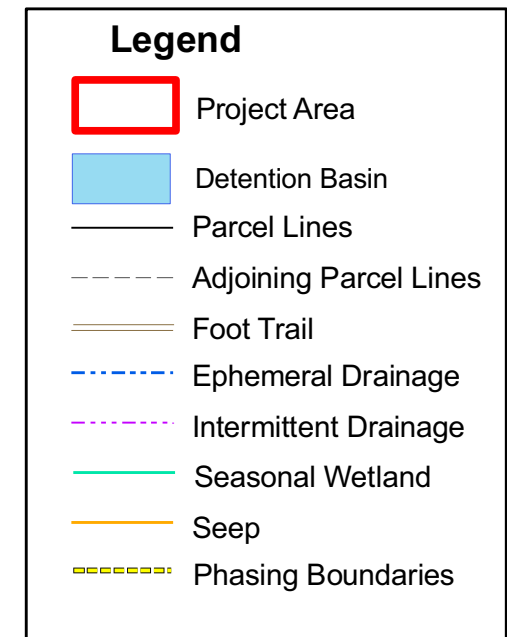
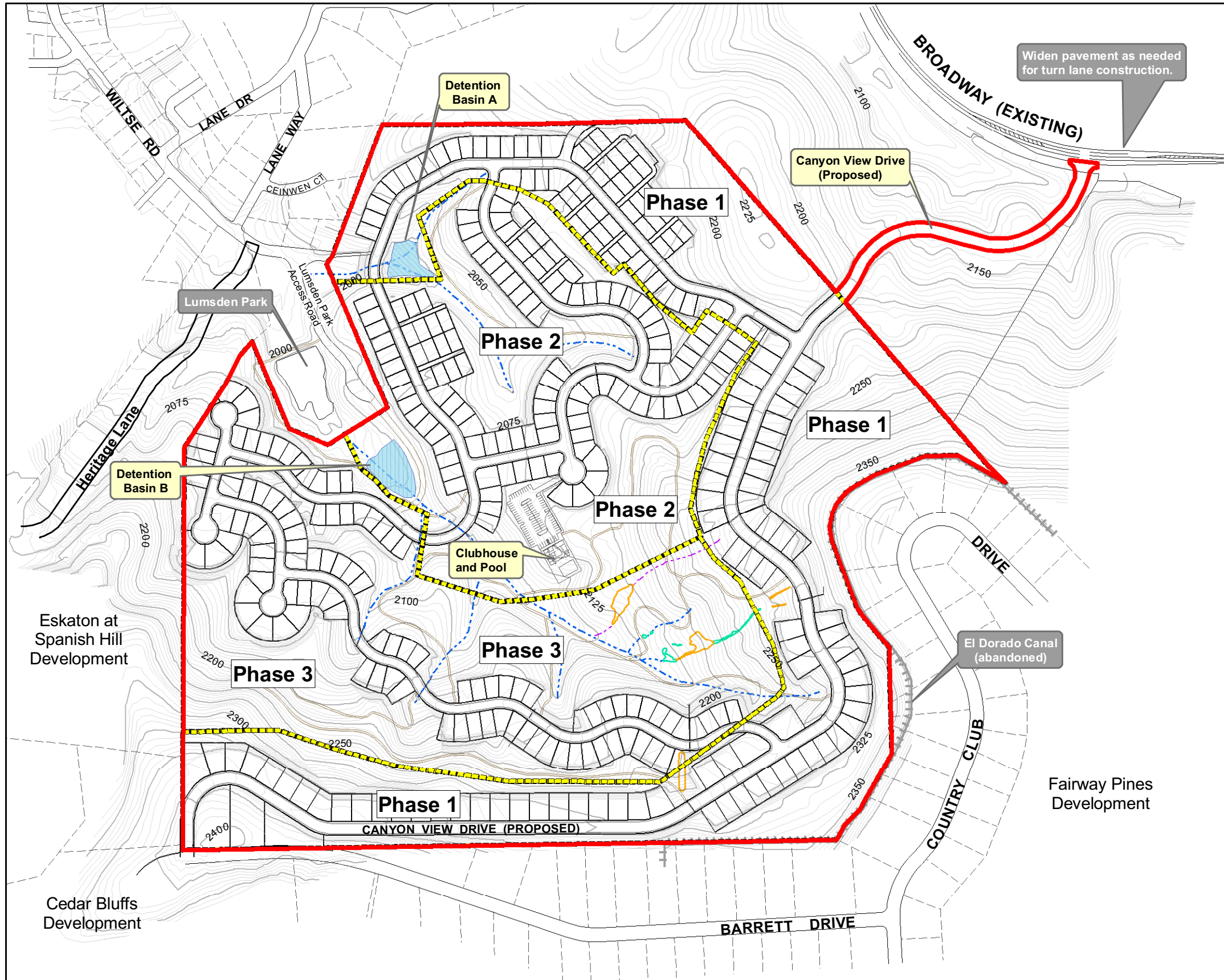
**Legend**

- Project Area
- Offsite Sewer Improvements

**Figure 2-1  
Project Location**

Lumsden Ranch  
City of Placerville





**Figure 2-2  
Tentative Map**

Lumsden Ranch EIR  
City of Placerville



The project includes a looped, internal street system branching from Canyon View Drive. Canyon View Drive is proposed to be 40 feet wide from curb to curb within a 50-foot right-of-way. The other streets are proposed to be 30 feet wide from curb to curb within a 40-foot right-of-way. All streets would be dedicated to the City as public roads, and would be required to comply with City street standards. A system of walking trails would provide hiking opportunities, and would allow residents to walk to the clubhouse, swimming pool, and other portions of the development without driving. A diagram of the circulation system within the development is shown in Figure 2-2.

### **2.3.3 Utilities**

The project would include construction of all required on-site utility infrastructure, including sewer and water lines, a stormwater collection system, and underground lines for all “dry utilities” (e.g., electricity, telephone, cable television). The project would be served by the City’s water, sewer, and storm drain system, and by Pacific Gas and Electric (PG&E) for electricity. The applicant is also considering an on-site propane storage and delivery system to serve the development (Figure 2-3).

#### **Water Delivery System**

The City of Placerville would provide water to the development. Water would be delivered to the project area by existing city water lines that would connect to the proposed on-site water delivery system at four locations: Wiltse Road, Broadway (at the proposed Canyon View Drive intersection), Country Club Drive (location to be determined), and Barrett Drive. The on-site water delivery system would include a looped system of underground water lines constructed within the street rights-of-way. If deemed necessary by the City, the project’s water delivery system would include pressure-sustaining valves to ensure adequate water pressure continues to be delivered to existing homes in established upstream pressure zones.

#### **Wastewater Collection and Treatment**

Wastewater treatment service would be provided by the City’s Hangtown Creek Wastewater Treatment Plant (WWTP).

Project-generated wastewater would be collected by underground sewer lines within the street rights-of-way. Wastewater would flow by gravity to new 10-inch-diameter sewer lines to be constructed by the applicant within the Lumsden Park access road and Wiltse Road. These sewer lines would join within Wiltse Road, and the combined 10-inch sewer line would run beneath Wiltse Road to Broadway 0.25 mile northwest of the project area (Figure 2-3). The existing sewer line in Wiltse Road would be abandoned. The applicant will be required to reconnect the existing sewer connections to the new line, and to repair the sections of Wiltse Road affected by the sewer line construction.

The City has determined that a portion of the existing sewer line that runs along Hangtown Creek between Wiltse Road and Main Street does not have adequate capacity to serve the project. A new 0.6-mile sewer trunk line constructed within Broadway would be needed to replace the existing section of sewer line and provide adequate capacity to serve the project. The existing sewer line would be abandoned.

Also, existing sewer connections (i.e., laterals) for the businesses along this section of Broadway would need to be reconnected to the new sewer trunk line. A 900-foot section of replacement sewer trunk line is already being planned as a City project as a component of its planned Blairs Lane Bridge improvement project. The City will require the applicant to construct the remainder of the sewer trunk line within Broadway and the reconnected laterals along that section (Figure 2-4).

The City is also considering whether to modify the existing rear lot line sewer line behind the existing homes along the north side of Barrett Drive and the west side of Country Club Drive by connecting it to the sewer line proposed for Canyon View Drive. The City would construct a connection between the existing sewer line at its upper end near the rear of 1803 Country Club Drive and the proposed Canyon View Drive sewer line (Figure 2-3). The exact alignment of the sewer connection line has not been determined.

### **Stormwater Drainage**

The project would include a drainage system designed to channel project runoff to two on-site detention basins. No changes to the lake at Lumsden Park are proposed. The stormwater drainage system would be designed to comply with the El Dorado County Drainage Manual (El Dorado County 1995). The project's drainage system would consist of curbs and gutters, drain lines, vegetated swales, detention basins, and drainage outfalls. Runoff from streets and lots would flow into storm drain inlets, and would be transported by underground storm drain lines beneath the streets. Runoff would outfall from the storm drain lines, and flow through vegetated swales into two detention basins in the northwestern portion of the project area. Runoff from the open space portions of the project area would be carried by the natural drainages toward the detention basins. The detention basins would release flows into the existing drainages downgradient of the project area. The detention basins are designed to hold the volume of water delivered by a 100-year, 24-hour storm and regulate stormwater release rates so they do not exceed existing rates. The detention basins would not hold standing water for extended periods of time.

### **Propane Storage and Delivery**

The applicant is considering an on-site propane storage and delivery system to serve the project. This system could include centralized underground storage tanks to serve about 57 residential units in the northern portion of the development. The remaining units and the clubhouse would either be served by five large underground storage tanks and underground distribution lines located in the street system, or by individual aboveground propane tanks located within each lot. The City, however, highly discourages aboveground individual propane tanks. The propane system would be designed and constructed in accordance with all applicable fire, safety, and building codes. The system would include all applicable safety measures required by these codes, such as minimum setbacks from buildings and lot lines, crash protection devices (e.g., bollards or large boulders) for aboveground tanks, and locked fencing around large tanks. The City allows private consolidated propane lines within public streets if the propane system participates in Underground Service Alert.

### **2.3.4 Fire Suppression**

The El Dorado County Fire Protection District (EDCFPD) provides fire protection and emergency medical services to Placerville and the project area. EDCFPD has indicated its strong preference for three access routes into the project area for emergency vehicles; however, the project only includes two access routes. Canyon View Drive would provide one access route from Broadway and one from Barrett Drive. EDCFPD indicated that it would accept two access routes if the applicant installs sprinklers in every home and the clubhouse. Therefore, the applicant is proposing to install sprinklers in all residences and the clubhouse.

## **2.4 REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS**

Implementation of the project may require several local, state, and federal permits or approvals. The following list includes the possible permits or discretionary actions and the agencies responsible for issuing the permits or approving the action. These agencies may use the EIR for their review or approval process.

### City of Placerville

- Tentative Subdivision Map 06-02
- Planned Development Overlay 05-01
- Environmental Assessment 06-01
- Construction Permits

### U.S. Army Corps of Engineers

- Clean Water Act Section 404 Permit

### Central Valley Regional Water Quality Control Board

- Water Quality Certification (Section 401 of the Clean Water Act)
- Stormwater National Pollutant Discharge Elimination System (NPDES) Permit

### U.S. Fish and Wildlife Service

- Federal Endangered Species Act Compliance

### California Department of Fish and Game

- California Endangered Species Act Compliance
- Streambed Alteration Agreement

### El Dorado County Fire Protection District

- Fire Safe Plan approval

California Department of Forestry and Fire Protection

- Timber Harvest Plan approval
- Conversion Permit

## 2.5 PHASES AND SCHEDULE

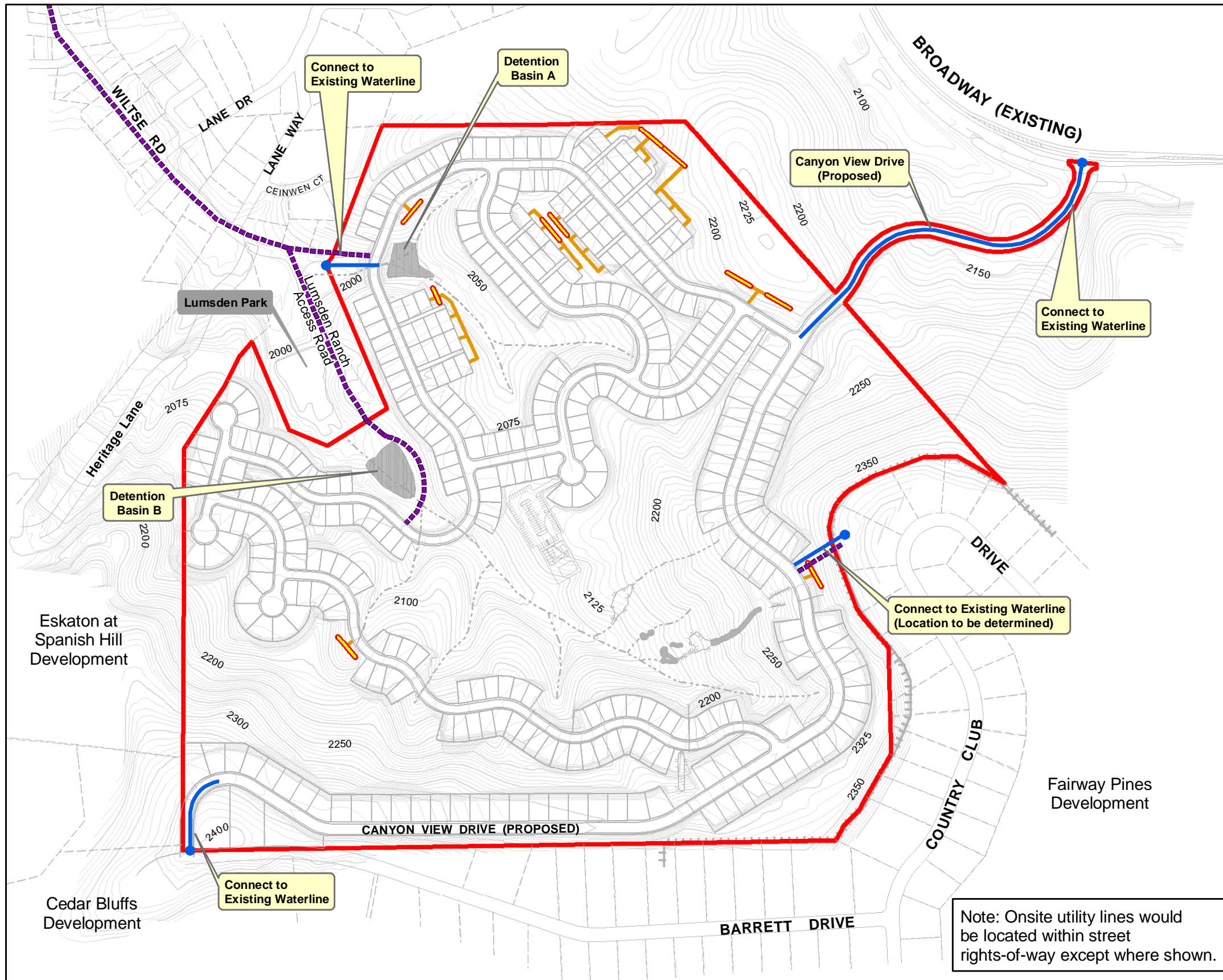
The project would be constructed in three phases (Figure 2-2). Table 2-1 shows the applicant's proposed construction schedule for each phase. The actual phasing schedule would depend on market conditions.

**Table 2-1. Project Schedule**

<b>Phase</b>	<b>Construction Start</b>	<b>Construction End</b>	<b>Duration</b>
Phase 1	Spring 2010	Fall 2011	19 Months
Phase 2	Fall 2010	Spring 2012	19 Months
Phase 3	Spring 2011	Fall 2012	19 Months

Source: Klemetson Engineering 2007.



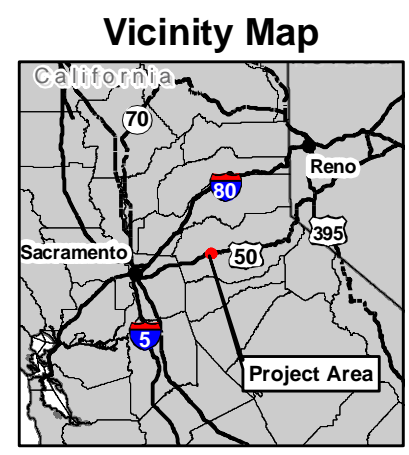


**Legend**

- Project Area
- Parcel Lines
- - - Adjoining Parcel Lines
- - - Ephemeral Drainage
- - - Intermittent Drainage
- Seasonal Wetland
- Seep
- Detention Basin

**Proposed Utilities**

- Water Line Connections (Proposed)
- - - Offsite Sewer Lines (Proposed)
- Propane Storage Tanks (Proposed)
- Propane Lines (Proposed)

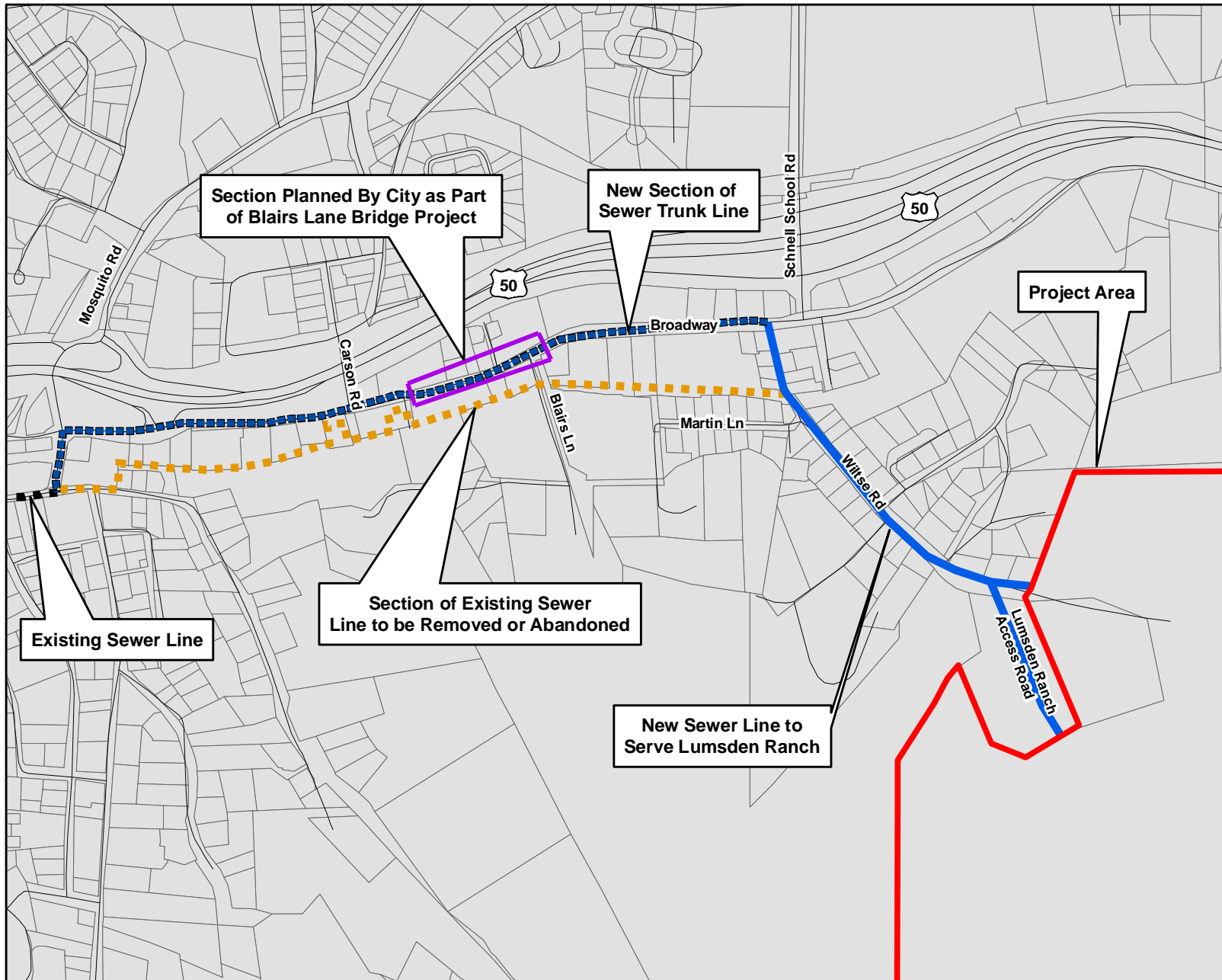


Note: Onsite utility lines would be located within street rights-of-way except where shown.

**Figure 2-3  
Utilities Map**

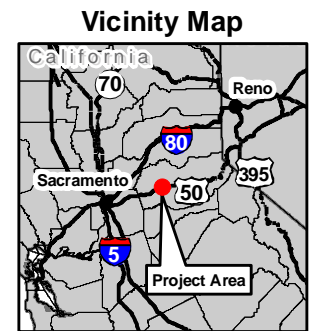
Lumsden Ranch EIR  
City of Placerville



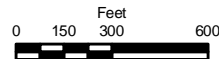


**Legend**

- Project Area
- New Section of Sewer Trunk Line
- New Sewer Line to Serve Lumsden Ranch
- Existing Sewer Line (to be Removed or Abandoned)
- Existing Sewer Line



**Figure 2-4  
Sewer Line Upgrade**





# CHAPTER 3

## ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

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### 3.0 INTRODUCTION TO THE ENVIRONMENTAL IMPACT ANALYSIS

This chapter describes the environmental and regulatory setting of the project area and evaluates the environmental effects that would occur with implementation of the project. Each resource section includes a summary of applicable laws, regulations, and policies; a description of the existing conditions in the project area; the thresholds for determining impact significance; an impact analysis; and a list of mitigation measures to reduce significant impacts. Cumulative impacts of the project with other foreseeable projects in the area are evaluated in Chapter 4, and growth-inducing effects of the project are discussed in Chapter 7.

The City of Placerville completed an Initial Study in March 2007 to identify resources that may be affected by project activities. Most of the resources were determined to have potentially significant adverse effects as a result of the project; therefore, they are evaluated in this chapter of the draft Environmental Impact Report (EIR). Impacts on energy and mineral resources were determined not to be significant based on the Initial Study, and are not further considered in this EIR. The Initial Study is included in the Draft EIR as Appendix A.

### 3.1 LAND USE

This section describes land uses in the project area and immediate vicinity and addresses issues related to potential inconsistency of the project with land use plans and policies. Detailed analyses of land use compatibility issues, such as visual impact (aesthetics), noise, and air quality, and consistency with applicable City of Placerville General Plan policies are fully evaluated in other sections of the EIR. Those issues are summarized in this section in the context of overall land use compatibility. As discussed in the Initial Study, the project would be consistent with the project area's general plan land use designation and zoning, would not adversely affect agricultural resources, and would not disrupt or divide an established community (see Appendix A). These issues are not discussed further in the EIR.

#### 3.1.1 Regulatory Setting

##### General Plan

Land use in the project area is guided by the **City of Placerville General Plan** (General Plan). The General Plan was adopted in 1989, and the Housing Element was revised and readopted in 2004.

The General Plan is a comprehensive, long-range plan for the physical development of unincorporated land within the city. The General Plan governs the intensity and location of land use throughout the city and designates land use categories for land within the city.

The General Plan includes the City’s stated policies for the use of public and private land. These policies cover a range of land use planning issues and are intended to guide City decision-making for land use in Placerville. The overall goal of the General Plan land use policies “is to preserve the small-town, rural character of Placerville, while providing for a land use pattern and mix that meets the residential, commercial, and employment needs of its existing and future residents.”

Some of the General Plan policies relate to environmental issues and are intended to avoid or mitigate environmental effects. The policies in the General Plan Land Use Element related to environmental issues relevant to the project are presented in Table 3.1-1 below, along with an analysis of the consistency of the project with those policies. The City council has the sole authority to decide whether the project is consistent with applicable land use policies.

**Table 3.1-1. City of Placerville General Plan Land Use Element Policy Consistency Analysis**

Policy	Consistent (Yes or No)	Discussion
Policy B.2: The City shall promote the use of planned unit residential developments to maximize efficient and creative use of parcels while preserving trees, aesthetic rock outcrops, scenic views, open space, and other natural features.	Yes	The proposed planned development project would cluster residential parcels to retain 49 percent of existing canopy cover, nearly all the wetlands and drainages, and 56 percent of the project area as open space. As discussed in Section 3.9, the project would not substantially degrade scenic views.
Policy B.3: The City shall discourage development of small, isolated hillside residential areas that can be served only by long roads in steep terrain.	Yes	The project is located on a hillside, but is neither small nor isolated. The 366-unit development would be directly adjacent to other residential land uses. Canyon View Drive (proposed) would serve the project from Broadway (0.25 mile from the site) and from Barrett Drive.

**Placerville Airport Comprehensive Land Use Plan**

In the 1960s, the California legislature created a system of county commissions to regulate land planning in the vicinity of airports (**Public Utilities Code Sections 21670–21679.5**). Under this law, Airport Land Use Commissions (ALUCs) have been established for public use airports.

ALUCs are required to adopt compatibility plans for their airports. Safety and noise are the two fundamental compatibility concerns. Safety is addressed by building height restrictions that protect airport airspace from obstructions and other hazards and by airport safety zones that limit land uses to protect people and property on the ground near airports. Noise concerns are addressed by drawing noise contours and establishing noise criteria for different land uses. Compatibility determinations are guided by the California Airport Land Use Planning Handbook (California Department of Transportation [Caltrans] 2002).

The **Placerville Airport Comprehensive Land Use Plan (CLUP)** was first adopted in 1987, and was revised and adopted in 1996 by the Foothill ALUC. The CLUP includes policies that establish land use compatibility standards for height restrictions, noise compatibility, and safety of persons on the ground. These standards are applied primarily to proposed new land use in the airport vicinity and not to existing development that may be inconsistent with the standards. Proposed land uses must be compatible with each of the CLUP's height, noise, and safety standards to be considered consistent with the CLUP (Foothill ALUC 1996).

### Height Restrictions

The height restrictions are needed to ensure that objects will not impair flight safety or decrease the operational capability of the airport. The CLUP defines a series of imaginary horizontal and sloping surfaces in airspace near the airport. Any new construction that would penetrate the imaginary surfaces is deemed to be an incompatible land use, unless either (1) the Federal Aviation Administration (FAA) has determined that the proposed structure does not constitute a hazard to air navigation or (2) the State Aeronautics Program has issued a permit allowing construction of the proposed structure. The Horizontal Surface is a horizontal plane 150 feet above an airport's established elevation. Placerville Airport sits at 2,583 feet above mean sea level (msl), and the Horizontal Surface sits at 2,733 feet above msl.

### Noise

The CLUP adopts land use compatibility guidelines for different noise levels. The compatibility guideline for residential land uses is an exterior noise level of 65 decibels (dB) community noise equivalent level (CNEL) or less. Aviation and noise easements and noise insulation mitigation is required to be incorporated into the design and construction of residential buildings located within the 60 dB or greater CNEL noise contours.

### Safety Restriction Area

The CLUP designates three safety areas. The clear zone is near each end of the runway and is the most restrictive. The approach-departure zone is located under the take-off and landing slopes and is less restrictive. The overflight zone is the area under the air traffic pattern and is even less restrictive. For the Placerville Airport, the overflight zone extends laterally 5,000 feet from the primary surface of the runway. The CLUP adopts land use compatibility guidelines for each zone. The compatibility guidelines allow single-family residential land uses in the overflight zone.

## **3.1.2 Environmental Setting**

### **On-site and Surrounding Land Uses**

The project area currently contains five single-family residences and outbuildings and is primarily vegetated with mixed hardwood forest interspersed with woodland and chaparral. Located on the northwest slope of Texas Hill, the project area is near several ephemeral drainages, seeps, and springs. Site elevations range from 2,000 feet above

msl near the northwestern project area boundary to 2,400 feet above msl along the southern boundary.

Lumsden Ranch is east of and adjacent to the 113-parcel senior citizen-oriented Eskaton at Spanish Hill project and a City-approved 58-parcel single-family subdivision development called Cedar Bluffs. Existing single-family residential uses are located to the south and northwest of the project area. Land uses to the northeast include undeveloped residentially zoned property adjacent to the project area and commercial land uses along the southwest side of Broadway. The Placerville general aviation airport is located approximately 1,200 feet southeast of the project area.

### **Placerville Airport CLUP**

The project area is located under the airport's Horizontal Surface at 2,733 feet above msl. The highest portion of the project area is 2,400 feet above msl, approximately 333 feet below the Horizontal Surface. The CLUP's noise contour map places the project boundaries just outside of the 55-dBA (A-weighted decibel) airport noise contour (Foothill ALUC 1996). The project area is located within the airport's overflight zone (Figure 3.1-1).

### **3.1.3 Impact Analysis**

#### **Methodology**

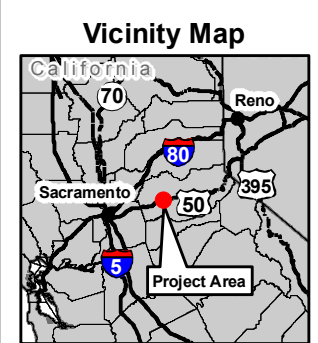
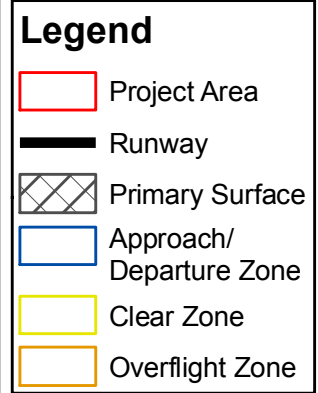
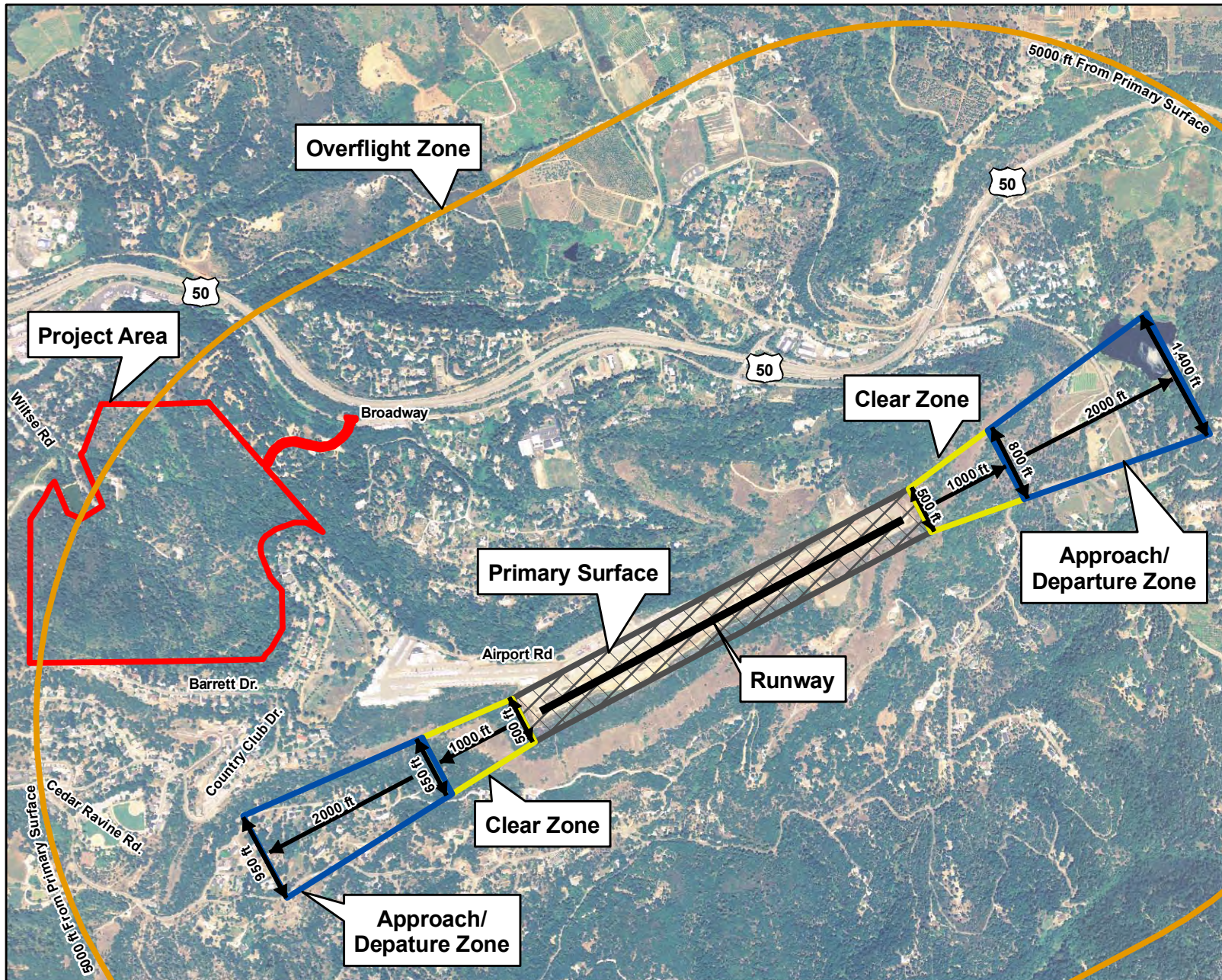
The project was compared with the County General Plan's Land Use element policies and the CLUP to analyze consistency with the applicable land use plans and policies. The results of the aesthetics, noise, and air quality analyses in other sections of the EIR were used to evaluate overall land use compatibility.

#### **Levels of Significance**

Adverse impacts to land use would be considered significant if the proposed project would:

- Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project
- Be incompatible with existing, planned, or approved land uses in the vicinity





**Figure 3.1-1  
Airport Safety Areas**



## **Impacts and Mitigation Measures**

### **Impact LU-1: The project would be consistent with the applicable policies of the General Plan Land Use Element.**

As shown in Table 3.1-1, the project would be consistent with applicable policies of the General Plan Land Use element that pertain to environmental issues. Consistency with other applicable policies of other General Plan elements is addressed in other sections of the EIR. This is a less-than-significant impact.

**Level of Significance Before Mitigation: Less than significant because the project would be consistent with applicable land use policies.**

### **Impact LU-2: The project would be consistent with the Placerville Airport CLUP.**

The project would be consistent with the Placerville Airport CLUP. The project area is located under the airport's Horizontal Surface at 2,733 feet above msl. The highest portion of the project area is 2,400 feet above msl, approximately 333 feet below the Horizontal Surface. The project structures (i.e., single-family residences, clubhouse) would not exceed 333 feet in height and therefore would not exceed the CLUP height limits. The project area is located outside the airport's 60-dB CNEL noise contour, and would therefore be consistent with the CLUP's land use compatibility guidelines for noise. The project area is located within the airport's overflight zone. Because the CLUP allows single-family residential land uses in the overflight zone, the project would be compatible with the CLUP's land use compatibility guidelines for safety. This is a less-than-significant impact.

**Level of Significance Before Mitigation: Less than significant.**

### **Impact LU-3: The project would not create physical land use conflicts with existing land uses in neighboring areas.**

This EIR evaluates the physical environmental effects of the project, including effects that could create physical conflicts with existing, planned, or approved land uses in neighboring areas. Section 3.11 (Air Quality) concludes that the project would expose nearby residents to potential health effects of wood smoke from project fireplaces. As discussed in Section 3.11, however, restricting project fireplaces to burning propane rather than wood would reduce resulting pollutants to acceptable levels. The project would therefore not create physical conflicts with existing, planned, or approved land uses in neighboring areas. This is a less-than-significant impact.

**Level of Significance Before Mitigation: Less than significant because restricting project fireplaces to burning propane rather than wood would reduce resulting pollutants to acceptable levels.**

## **Significant and Unavoidable Impacts**

None.

## 3.2 POPULATION AND HOUSING

This section describes the existing population and housing setting in the city and the project vicinity, as well as demographic trends and projections based on available reports (e.g., City's General Plan, Sacramento Area Council of Governments [SACOG] projections). The impact analysis discusses direct population growth from the project's new housing. Indirect growth-inducing impacts related to job creation and extension of infrastructure are addressed in Section 6.3 (Growth-inducing Impacts), and cumulative impacts are addressed in Chapter 4 (Cumulative Impacts). As discussed in the Initial Study (Appendix A), the project would include demolition of five existing homes on the site; however, construction of 366 homes would minimize the potential housing displacement impact to a less-than-significant level. This issue is not discussed further in the EIR.

### 3.2.1 Regulatory Setting

#### Sacramento Region Blueprint and Regional Housing Needs Plan

The SACOG region consists of Sacramento, Yolo, El Dorado, Placer, Yuba, and Sutter Counties. In 2002, SACOG initiated the Sacramento Region Blueprint (Blueprint) as an advisory tool for land use planning by local governments within its region through the year 2050. In 2004, the SACOG Board of Directors adopted the Preferred Blueprint Scenario, which depicts a way for the region to grow consistent with the Blueprint Growth Principles (SACOG and Valley Vision 2004). The Blueprint provides population and housing estimates and projections over a 50-year period (2000–2050) for the region, including Placerville.

SACOG has prepared a **Regional Housing Needs Plan (RHNP)** (SACOG 2008), a seven-and-a-half-year plan (2005–2013) that allocates to SACOG cities and counties their "fair share" of the region's projected housing needs. Each city and county in the RHNP is allocated a Regional Housing Needs Allocation (RHNA) of the total number of housing units that it must plan for within this time period. Within the total number of units, allocations are also made for the number of units within four economic categories: very low, low, moderate, and above moderate incomes.

#### City of Placerville General Plan

The **City of Placerville General Plan** (1989a) overall goals and policies applicable to population and housing conditions are set forth in the Land Use Element and Housing Element. The **Land Use Element** policies aim to preserve the small-town, rural character of Placerville while providing for a land use pattern and mix that meets the residential, commercial, and employment needs of its existing and future residences. The Land Use Element identifies goals and policies to provide orderly development within urban boundaries, provide decent housing for every resident, and provide land use patterns that minimize the exposure of residents to hazardous conditions and nuisances.

The **Housing Element** (adopted in 2004) is a six-year plan (2003–2009) designed to provide the City with a coordinated and comprehensive strategy for promoting the production of safe, decent, and affordable housing for current and future needs within the community. The Housing Element identifies goals and policies that strive to

designate sufficient land to accommodate Placerville’s share of El Dorado County’s future housing need by promoting infill development, facilitating the development of affordable housing, and removing constraints to the development of housing for all income levels and needs. In addition, the Housing Element adopts SACOG population projections for the year 2020 for Placerville.

### 3.2.2 Environmental Setting

#### Existing Population and Housing

##### City of Placerville

##### *Population*

In 2000, the population in Placerville was 9,610. By 2006, the city’s population increased by approximately 5 percent to 10,171 (Table 3.2-1) (SACOG 2006).

**Table 3.2-1. Population Trends in Placerville for 2000 and 2006**

Area	2000	2006
Placerville	9,610	10,171

Source: SACOG 2006

##### *Housing*

In 2000, 4,240 housing units were located in Placerville. By 2006, the city’s housing stock increased by approximately 8 percent to 4,580 units (Table 3.2-2). Housing types in the city for 2006 included 3,060 single-family homes, 1,360 multi-family homes, and 161 other homes (SACOG 2006).

**Table 3.2-2. Housing Trends in Placerville for 2000 and 2006**

Area	2000	2006
Placerville	4,240	4,580

Source: SACOG 2006

#### Projected Population and Housing

##### City of Placerville

##### *Population*

The city’s population is expected to increase to 11,250 by 2010 and to 13,790 by 2020 (Table 3.2-3) (SACOG 2004). By 2050, the city’s population is projected to increase to 22,000 (SACOG and Valley Vision 2004).

**Table 3.2-3. Placerville Population Projections**

Area	2010	2020	2050
Placerville	11,250	13,790	22,000

Sources: SACOG 2004; SACOG and Valley Vision 2004

### *Housing*

Placerville's housing stock is expected to increase to 4,950 by 2013 (Table 3.2-4) (SACOG 2006). By 2050, the city's households are projected to increase to 9,800 (SACOG and Valley Vision 2004).

**Table 3.2-4. Placerville Housing Projections**

Area	2006	2013	2050
Placerville	4,580	4,950	9,800

Source: SACOG 2006; SACOG and Valley Vision 2004

## **3.2.3 Impact Analysis**

### **Methodology**

The impact analysis for population and housing is based on the proposed demographic increases in the project area as compared with the projected increases in the city and region. Because the project is designed to increase population and housing in Placerville, the purpose of the analysis is to determine if the project's demographics fall within SACOG projections.

### **Levels of Significance**

Adverse impacts related to population and housing would be considered significant if the proposed project would:

- Exceed official local population projections
- Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)

### **Impacts and Mitigation Measures**

**Impact PHE-1: The project would add 1,047 persons to Placerville's population, but population projections would not be exceeded.**

The project would add a net increase of 361 single-family residential housing units in the city. Based on the proposed number of housing units and the city's (2004) person per household rate of 2.9, the project would result in a permanent population of approximately 1,047 persons in the project area. This would increase the city's 2006 population by 10 percent. This increase would be substantial, but would fall within the city's population projections for 2010 and 2020. The additional 1,047 persons would

contribute approximately 33 and 29 percent of the city's projected population increases for 2010 and 2020, respectively.

Because the project's added population would fall within the range of Placerville's planned growth, direct impacts on population would be less than significant.

**Level of Significance Before Mitigation: Less than significant because project population would not exceed SACOG projections for Placerville.**

**Impact PHE-2: The project would add 361 housing units in the city, but Regional Housing Needs Plan would not be exceeded.**

The project would add a net increase of 361 single-family residential housing units in Placerville. Based on 2006 housing estimates and the regional housing need for 2013, the city is expected to build a total of 370 new housing units citywide to meet this need (SACOG 2008). The project's addition of 361 housing units to the city would account for approximately 98 percent of the city's overall projection by 2013. Because the project's added housing would fall within the range of Placerville's projected regional housing need, direct impacts on housing would be less than significant.

**Level of Significance: Less than significant because project housing units would not exceed the Regional Housing Needs Plan for Placerville.**

### **Significant and Unavoidable Impacts**

None.

## **3.3 PUBLIC SERVICES**

This section describes existing public services in the project area, identifies impacts to the public service facilities that may occur with implementation of the project, and recommends mitigation measures to reduce or eliminate significant impacts. The public services evaluated in this section include police and fire services, schools, and parks. Physical impacts related to construction of the recreational facilities proposed for the project (i.e., trail system, swimming pool, clubhouse) are fully evaluated in other sections of the EIR. This section also evaluates the risk of increased wild fire hazard generated by the project. The discussion contained in this section is based upon personal communications, a wild fire safe plan prepared for the project, and available literature.

### **3.3.1 Regulatory Setting**

The **City of Placerville General Plan** (1989a) identifies goals and policies intended to assure that necessary public services are available to serve present and future residents. Public services addressed in the General Plan include law enforcement, fire protection, parks and recreation, schools, and other necessary public services.

The overall goal of the policies of the **Public Facilities and Services Element** is to promote the provision of an adequate level of services to support existing and future development and to protect the public's health and safety. Specific goals and policies for the parks and recreation programs include:

- Establishing and maintaining a park system and recreation program suited to the needs of City residents and visitors
- Providing 5 acres of usable developed neighborhood and community parkland per 1,000 residents
- Assessing park development fees on all new residential developments

Goals and policies for law enforcement and fire protection include:

- Ensuring current levels of police and fire services are maintained as new development occurs
- Maintaining the minimal feasible police response time for emergency calls (three minutes for emergency calls, seven minutes for priority calls, and 10 minutes for routine calls)
- Maintaining adequate staffing for fire prevention

Goals and policies pertaining to educational facilities include:

- Providing for the educational needs of Placerville residents
- Cooperating with the Placerville Unified Elementary School District (PUSD) and the El Dorado Union High School District (EDUHSD) in collecting school impact fees

### **3.3.2 Environmental Setting**

#### **Law Enforcement**

The Placerville Police Department is charged with the city's general law enforcement. The Police Department is located on 730 Main Street (approximately 1 mile west of the project area), and serves the municipality (approximately 7.5 square miles), including the project area.

The Police Department has a total staff of 34 employees, including 21 sworn officers and 12 full-time support staff, supported by reserve sworn officers, part-time staff, and volunteers. The Police Department strives to maintain a service ratio of 2.6 officers for every 1,000 residents. Based on the current population within the city (10,170 persons), the Police Department is operating beyond capacity, and is deficient in office space by approximately 10,000 square feet. The existing service ratio is two officers for every 1,000 residents. Currently, the Police Department requires an additional six sworn officers to meet their standards (Nielsen 2007).

The Police Department has a mutual aid protocol with the El Dorado Sheriff and California Highway Patrol. The Police Department handles most calls on its own. About 3 to 5 percent of all calls to the police required mutual assistance from the Sheriff and Highway Patrol, but no recent calls have involved the project area (Nielsen 2007).

In 2006, the citywide average response times for Police Department calls were categorized by priority levels: Priority A (emergency) calls have a three-minute response; Priority B (priority) calls have a seven-minute response; and routine calls have a 10-minute response. The Police Department currently meets their preferred response times for existing land uses within its service area (Nielsen 2007).



The Police Department is funded through various sources, with the majority of its revenues provided by the City's General Fund. Remaining funding sources include miscellaneous grants, fees, and other revenues generated by the City.

## **Fire Protection and Wild Fires**

### El Dorado County Fire Protection District

The El Dorado County Fire Protection District (EDCFPD) provides fire protection and emergency medical services to Placerville and the project area. The EDCFPD is supported by 16 firefighters out of eight local stations and has a service area of approximately 200 square miles. The EDCFPD is staffed by 35 paid staff, of which 16 are full-time firefighters, and is augmented by approximately 40 volunteers (Johnson 2007). The EDCFPD also maintains automatic aid cooperative agreements with all surrounding fire districts to respond when needed. Neighboring districts include Cameron Park, Diamond Springs, El Dorado Hills, Garden Valley, Georgetown, Latrobe, Mosquito, and the Rescue Fire District (Johnson 2007).

The EDCFPD serves the project area from Station 25, located at 3034 Sacramento Street (1.4 miles west of the project area). The EDCFPD currently receives about one call annually from the project area, with response times between four and six minutes (Johnson 2007).

Staffing, equipment, and facilities are inadequate for current demand. The EDCFPD strives for a target of two fire trucks and four firefighters at each station, but operates at a service level of one fire truck staffed by two firefighters at each station. The EDCFPD strives for a target response time of four to six minutes; however, current average response times across the service area range from six to 10 minutes. The EDCFPD's response times are currently inadequate for existing land uses within its service area, particularly to east Placerville. The EDCFPD has identified an existing need for at least four additional full-time firefighters, two trucks, and a new fire station to provide adequate service to east Placerville residents (Johnson 2007).

A portion of EDCFPD's funding is provided by development fees collected by the City for new development. The EDCFPD currently receives \$500 per new housing unit. The EDCFPD may use these fees for equipment and facilities, but not for staffing.

### Wild Fire Hazards

The vegetation within the project area and adjacent properties represents a moderate to heavy fuel hazard in a setting that includes steep topography in some locations (CDS Fire Prevention Planning 2007; EIR Appendix K).

## **Schools**

The project area is located within two school districts: the PUSD and the EDUHSD.

The PUSD currently has one grade 2–4 elementary school, Placerville Community Day School; two kindergarten (K)–grade 5 elementary schools, Sierra School and Louisiana

Schnell School; and one middle school (grades 6–8), Edwin Markham Middle School. Louisiana Schnell School and Sierra School would serve the project’s elementary-grade students and Edwin Markham would serve the project’s middle-grade students (Lynch 2007).

Table 3.3-1 shows the 2007 school year enrollments for both school districts. On a district level, Placerville Union School District is currently operating at 80 percent capacity. Placerville Union School District has experienced a slow, steady decline in enrollment over the past five years (Lynch 2007).

The EDUHSD currently has four comprehensive high schools that provide education for grades 9–12: El Dorado High School, Oak Ridge High School, Ponderosa High School, and Union Mine High School. Four alternative schools in the district offer continuation education ranging from grades 9–12: Mountain View High School, Vista High School, Independent Learning Center Adult Education Program, and Community Day School. The district also has one charter school, Shenandoah High School, serving grades 9–12. Independence High School and the Central Sierra Regional Occupational Program are not grade specific, but require students to be at least 16 years old to enroll. El Dorado High School would serve the project’s high school students.

The comprehensive schools, Independence High School, and Shenandoah High School all have their own campuses. The remaining schools are located on EDUHSD campuses shared with other facilities.

**Table 3.3-1. 2007 School Enrollment**

School Name	Grade Levels	Current Enrollment	Student Capacity	Percent of Capacity	Remaining Capacity
<b>Placerville Union School District<sup>a</sup></b>					
Placerville Community Day School	2-4	5	9	56	4
Louisiana Schnell School	K-5	426	450	95	24
Sierra School	K-5	403	450	89	47
Edwin Markham Middle School	6-8	355	450	79	95
<b>Total</b>		<b>1,189</b>	<b>1,359</b>	<b>87</b>	<b>170</b>
<b>El Dorado Union High School District<sup>b</sup></b>					
El Dorado High School	9-12	1,279	1,497	85	218
Oak Ridge High School	9-12	2,119	2,037	104	-82
Ponderosa High School	9-12	2,022	2,208	92	186
Union Mine High School	9-12	1,403	1,617	87	214
Community Day School	9-12	10	25	40	15
Independence Learning Center Adult Education Program	9-12	213	225	95	12
Shenandoah High School	9-12	129	130	99	1
Independence High School	>16 years old	100	200	50	100
Mountain View High School	11-12	31	50	62	19
Vista High School	11-12	32	25	128	-7
Central Sierra Regional Occupational Program	>16 years old, >grade 10	1,400	-	-	-
<b>TOTAL*</b>		<b>7,338</b>	<b>8,014</b>	<b>92</b>	<b>676</b>

Source: <sup>a</sup>Lynch 2007; <sup>b</sup>Lillywhite 2007

\*Does not include Occupational Program

## **Parks**

Six parks and one recreational trail are located in Placerville. The City's Recreation and Parks Department operates and maintains 101 acres of public parks, including Lumsden Park (4 acres), City Park (4 acres), Lions Park (24 acres), Gold Bug Park and Mine (61 acres), Orchard Hill Park (4 acres), and Rotary Park (4 acres).

Lumsden Park is directly adjacent to the project area, and includes a fishing pond, a tot lot play area, turf areas, picnic facilities, horseshoe pits, and restrooms. City Park is located in downtown Placerville (2 miles west of the project area) and provides a variety of recreational facilities, including an aquatics center, basketball courts, a meeting hall, a tot lot play area, and playground equipment. Lions Park is 1 mile (driving or walking distance) south of the project area, and includes softball fields, tennis courts, a tot lot, picnic facilities, turf areas, horseshoe pits, walking trails, and a disc golf course.

The El Dorado Trail is a recreational trail emphasizing biking, hiking, and equestrian activities. The majority of the trail is located within El Dorado County lands, with approximately four miles within the City of Placerville (Youel 2007).

The City's service ratio is 5 acres of parkland per 1,000 persons. Based on the current population within the City (10,170 persons), the City exceeds this service ratio by approximately 50 acres of park land.

All new residential construction is required to pay the City \$1,320 per dwelling unit to fund citywide park improvements. At the City's discretion, these fees may be reduced if a "major outdoor facility" (i.e., swimming pool, tennis court, park, or greenbelt) is provided and maintained by the development or land is dedicated to the City for park purposes in lieu of the fees (City Code Section 8-11-2).

### **3.3.3 Impact Analysis**

#### **Methodology**

Information about the public service providers, their facilities, and their capacities was developed through personal communications with representatives of the service providers. The Placerville Recreation and Parks website and an enrollment projection report prepared for the EDUHSD were also used to describe the existing services. The wild fire hazard analysis and mitigation measures are based on the fire safe plan prepared for the project and approved by EDCFPD (CDS Fire Prevention Planning 2007; EIR Appendix K). The following paragraphs explain the methodologies used to analyze impacts on specific types of public service facilities.

#### **Police and Fire Protection Service Providers**

Existing levels of staff and facilities, target response times and staffing ratios, existing response times and ratios, and existing demand generated by the project area (as described above) were used as the baseline conditions for these analyses. The proposed changes in land use were then evaluated, in consultation with the service providers, to determine whether the project would generate sufficient new demand to warrant hiring of new staff or construction of additional or expanded services and facilities.

### Schools

The PUSD and EDUHSD enrollment numbers were compared against the existing capacities of the school facilities to determine how much excess capacity (if any) each facility now has to serve the project. PUSD and EDUHSD student generation rates were used to calculate the expected student increase generated by the project, and whether each district's school facilities have sufficient capacity to serve the new students.

### Parks and Recreation

Current usage levels for the public parks and recreation facilities in the project vicinity were used as the baseline conditions for the following analyses. The expected increase in park usage generated by the proposed residences was used to determine whether the project would cause or accelerate substantial physical deterioration of the facilities.

### **Levels of Significance**

Adverse impacts related to public services would be considered significant if the proposed project would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:
  - Fire protection
  - Police protection
  - Schools
  - Parks
- Substantially increase unfunded public service agency staffing requirements.
- Increase fire hazard in areas with flammable brush, grass, or trees.
- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

### **Impacts and Mitigation Measures**

**Impact PS-1: The project would generate the demand for at least two new sworn officers, and would require additional equipment for the new officers and about 750 square feet of new or expanded police facilities.**

The Police Department expects the project to increase the number of calls to the department by approximately 7 to 10 percent. The expected increase would mostly include domestic violence, theft, burglary, gang influence, traffic complaints, violence,

and disturbance complaints generated by the residential land uses. Response times, however, are expected to remain fairly consistent with current response times according to priority levels. The Police Department currently meets its preferred response times for existing land uses within its service area and would therefore continue to meet preferred response time following project implementation (Nielsen 2007).

The project would result in an increase of approximately 1,047 residents in the Placerville service area. Using the Police Department's preferred staff-to-population ratio of 2.6:1,000 persons, the project would generate the demand for at least two new sworn officers. The additional officers would require safety equipment (e.g., weapons, ballistic vests, duty belts, less-than-lethal weapons) and an additional 750 square feet of office area (275 square feet per employee) (Nielsen 2007). Details regarding the location of new or expanded police facilities to serve the project are not currently available, so specific impacts associated with development of facilities are speculative. It should be noted, however, that future projects involving new or expanded police station facilities would be subject to the appropriate level of environmental review.

Tax revenues directly or indirectly (e.g., property and sales tax) generated by the Lumsden Ranch development for the City would be expected to sufficiently fund the additional costs incurred by the Police Department. Because Police Department funding is provided by the City's General Fund, any necessary increases in staff, equipment, or facilities would be paid by this fund. Impacts to police services would be less than significant because increased taxes generated by the project would be expected to fund additional officers, equipment, and facilities required for the project.

**Level of Significance Before Mitigation: Less than significant because increased taxes generated by the project would be expected to fund additional officers, equipment, and facilities required for the project.**

**Impact PS-2: The project would increase calls to the El Dorado County Fire Protection District by about 10 to 15 calls annually, and would require additional staff, equipment, and a new fire station.**

EDCFPD expects the project to increase the number of calls within its service area by about 10 to 15 calls annually. Approximately 70 percent would involve emergency medical service calls and some structural fire and hazardous materials incidents. Due to Fire Station 25's relatively close location to the project area, response times to the project area are expected to remain fairly consistent with current response times (Johnson 2007).

However, the EDCFPD does not currently meet its staffing or equipment targets, and additional demands from the project would increase the EDCFPD's response times to neighboring areas of the City, particularly east Placerville, thereby degrading services to that area (Johnson 2007). The project would generate demand for additional staff, equipment, and fire station facilities, which would require additional funding. Without this funding, the project would impair the EDCFPD's ability to provide fire and emergency services within its service area. This impact would be significant.

Construction of new fire station facilities to better serve east Placerville and the project area could result in adverse environmental impacts. Because no information about the location and construction of future fire stations is available, it is not possible to determine

whether facility construction would result in substantial adverse physical impacts on the environment. This impact is therefore too speculative for evaluation and is not considered further in this EIR. It should be noted, however, that future projects involving new or expanded fire station facilities would be subject to the appropriate level of environmental review.

**Level of Significance Before Mitigation: Significant because the project would substantially increase unfunded EDCFPD staffing requirements and may require the construction of new facilities.**

*Mitigation Measure PS-2: Provide funding for new firefighting facilities, equipment, and staff required to serve the project.*

Prior to City approval of any building permits for the project, the City will require the applicant to provide documentation to the Planning Department that it has coordinated with the EDCFPD to determine the staffing, equipment, and facility levels required to serve each development phase of the project. New staff, equipment, and facilities required to serve the project may include, but is not limited to, fire trucks, full-time firefighters, and possibly a fire station. The demand for new fire equipment, staff, and facilities may be reduced by incorporating fire-suppressing design and building materials into the project.

The applicant shall provide to EDCFPD the required funding needed for each development phase prior to approval of building permits, grading permits, or other authorization to begin on-site construction for that phase. The EDCFPD will be responsible for ensuring adequate staff, equipment, and facilities are in place to serve each phase of development prior to occupancy.

The EDCFPD can assess developer fees for the project to help pay for additional facilities and equipment needed to serve the new project. Developer fees assessed for the project shall be credited toward the project's funding requirements.

This mitigation measure is partly needed to mitigate the impacts of cumulative growth. As a result, the applicant would be eligible for reimbursement of the costs to implement this mitigation measure in excess of its fair share. A method of reimbursement shall be established by the EDCFPD, which may include an executed agreement between the City and the applicant that is consistent with state law. If any new EDCFPD facilities are required to serve the project, they would be subject to subsequent CEQA review by the City or El Dorado County, depending on the location of the facility.

**Level of Significance After Mitigation: Less than significant because staffing, equipment, and facilities required to serve the project would be funded by the applicant, and because the EDCFPD would be responsible for ensuring adequate staff, equipment, and facilities are in place to serve each phase of development prior to occupancy.**

**Impact PS-3: The project would reduce the risk of large wild fires within the project area, but would increase the risk of small wild fires due to the increase in public use within the project area.**

The project would include 366 new homes housing 1,047 people in a forested, hillside setting. Converting forested land to residential land uses would reduce the likelihood for large fires within the project area. However, the likelihood of small wild fires in the open space areas and the larger lots may increase due to the increase in public use within the project area. Fires starting in the grass and brush on the slopes throughout the project area is the most serious wild fire concern for the project. The greatest risk of fire ignition would occur along roads, in the open space areas, and on large lots (CDS Fire Prevention Planning 2007). Without proper fire safety planning, the increased risk of wildland fires resulting from the project would be a significant impact.

**Level of Significance Before Mitigation: Significant because the project could increase the risk of wild fires.**

*Mitigation Measure PS-3: Implement a fire safe plan to minimize risk of wildland fire.*

The City will require the applicant to implement the fire hazard reduction measures detailed in the fire safe plan that was prepared for the project and approved by the EDCFPD (CDS Fire Prevention Planning 2007; EIR Appendix K). This plan includes fire hazard reduction measures to be included in the design and maintenance of the project that reduce the size and intensity of wild fires and help prevent catastrophic fire losses. The plan includes fire hazard reduction measures customized to the topography and vegetation of the Lumsden Ranch development with special emphasis on the interface between homes and wildland fuels. The plan also includes measures for providing and maintaining defensible space along roads, in open space, and around future homes.

These measures include:

- Performing a thorough tree assessment to determine the health of the open space trees and to assess the extent of initial fuel treatment
- Maintaining a 50-foot fuel break along all sides of the development that interfaces with the open space on slopes less than 30 percent
- Maintaining a 100-foot fuel break along all sides of the development that interfaces with the open space on slopes greater than 30 percent
- Establishing and maintaining a fuel treatment zone of 10 feet on both sides of the roads adjacent to open space areas
- Establishing a special assessment district with the ability to collect regular fees for open space maintenance
- Restricting on-street parking where needed to ensure adequate access for fire trucks and equipment
- Performing annual fuel treatment maintenance by June 1 of each year
- Providing Class-A roofs and non-combustible exteriors for every home
- Providing enclosures beneath decks that are cantilevered over the natural slope
- Constructing fencing adjacent to open spaces using non-combustible material

Prior to issuance of building/grading permits for the project, the applicant shall provide documentation to the City that all EDCFPD-required fire safety measures are included in the project.



**Significance Level After Mitigation: Less than significant because implementation of a Fire Safe Plan would effectively minimize risk of fire hazards to a level acceptable to the fire district.**

**Impact PS-4: Using Country Club Drive to access the project area could reduce response times for fire trucks on route to the project area.**

The project includes two access routes for emergency vehicles. The western access route would follow Cedar Ravine Road to Country Club Drive to Barrett Drive, entering the southeast corner of the project area at Canyon View Drive.

Country Club Drive is a two-lane road with street parking on both sides. Street parking along Country Club Drive usually begins after work hours (5:00 p.m.), and effectively reduces the width of the road to the extent that oncoming traffic could interfere with fire trucks trying to reach the project area (Johnson 2007). Using Country Club Drive to access the project area could adversely affect the response times of fire trucks on-call to the project area. This would be a significant impact.

**Level of Significance Before Mitigation: Significant because street parking on Country Club Drive could reduce fire protection service response times.**

*Mitigation Measure PS-4: Implement Fire Safe Plan to offset increased fire protection response times from using Country Club Drive.*

Implement Mitigation Measure PS-3.

**Significance Level After Mitigation: Less than significant because implementation of a Fire Safe Plan, and the requirement to install sprinklers in every home and the clubhouse (if a third emergency access route into the project area is not identified), would offset increased response times from fire protection services.**

**Impact PS-5: New students generated by the project would exceed the student capacity of Louisiana Schnell Elementary School, Sierra School, and Edwin Markham Middle School.**

The project would add 361 new residential units to the PUSD and EDUHSD service areas. Each residential unit would generate 0.3 student in the elementary school grade range, 0.3 student in the middle school grade range (City of Placerville 1989a), and 0.18 student in the 9 through 12 grade range (SchoolWorks, Inc. 2007), for a combined total rate of 0.78 student per household.

Based on these rates, the project would generate 281 new students by 2012, the estimated year of project completion. The project would generate 108 new elementary school students who would attend one of the two elementary schools, 108 new middle school students who would attend Edwin Markham Middle School, and 65 new high school students who would attend El Dorado High School. This increase would exceed the capacity of the elementary and middle schools, which are currently near capacity. The high school, however, would have adequate capacity for the new students generated by the project (refer to Table 3.3-1).

Because the project would exceed the remaining capacity at the elementary schools and at Edwin Markham Middle School, new school facilities would be needed to serve the project, which could result in adverse environmental impacts. To accommodate the additional students, PUSD would likely add portable classrooms to its existing schools rather than constructing new schools (Aros 2008). The increased demand on PUSD would be a significant impact.

**Significance Level Before Mitigation: Significant because additional elementary and middle school students would require construction of new facilities.**

*Mitigation Measure PS-5: Assess developer fees to help pay for additional school facilities.*

PUSD can assess developer fees for the project to help pay for additional facilities needed to serve new students generated by the project. PUSD can assess these fees at a maximum rate of \$2.97 per square foot of assessable space for residential development and \$0.47 for commercial or industrial development as specified in Government Code Section 65995. These fees constitute the exclusive means of both “considering” and “mitigating” school facilities impacts of projects and are “deemed to provide full and complete school facilities mitigation” (Government Code Section 65996[a][h]).

**Significance Level After Mitigation: Less than significant because the developer fees would fully mitigate school facility impacts.**

**Impact PS-6: The project would increase usage of City parks, but recreational components proposed for the project would partially offset increased park usage.**

The project is located next to Lumsden Park, and the project’s proposed trail network and pedestrian use of the Lumsden Park Access Road (which would need to be Americans with Disabilities Act (ADA) compliant) would connect the project to the park. However, no vehicle roads would connect Lumsden Ranch directly to the park. The proximity and direct pedestrian access to the park from the project would facilitate increased park use by Lumsden Ranch residents. This increased visitation would likely cause accelerated physical deterioration of Lumsden Park facilities. In addition, Lions Park and City Park would experience additional use by project residents attracted by recreational facilities that are not available at Lumsden Park or Lumsden Ranch (i.e., softball fields, tennis courts, disc golf course, aquatics center, basketball court, meeting hall) (Youel 2007).

Recreational components proposed for the project would partially offset increased park usage by project residents. The project would maintain approximately 75 acres (56 percent) of land as open space with walking trails. It is reasonable to assume that, in addition to project residents, some nearby residents would use the open space and trail system within the project area. This would provide informal recreational opportunities for nearby residents and project area residents, thereby reducing the project’s burden on City parks (Youel 2007). The project, however, would substantially increase the number of people using city parks, thereby accelerating physical deterioration of City parks. This is a significant impact.

In addition, the project includes a clubhouse and swimming pool for residents. These facilities would also reduce the project's burden on City parks. The applicant would also be required to pay more than \$400,000 in park fees to the City to help offset deterioration of park facilities caused by the project.

**Significance Level Before Mitigation: Significant because the project would accelerate deterioration of City park facilities.**

*Mitigation Measure PS-6: Assess park fees to help offset deterioration of park facilities.*

The City will require the applicant to pay the City \$1,320 per dwelling unit (\$476,520) to fund citywide park improvements. At the City's discretion, these fees may be reduced if a "major outdoor facility" (i.e., swimming pool, tennis court, park, or greenbelt) is provided and maintained by the development or land is dedicated to the City for park purposes in lieu of the fees.

**Significance Level After Mitigation: Less than significant because recreational components proposed for the project would offset increased park usage by project residents, and payment of required park fees would offset deterioration of park facilities by project residents.**

### **Significant and Unavoidable Impacts**

None.

## **3.4 UTILITIES AND SERVICE SYSTEMS**

This section describes the utilities and service systems in the project vicinity, identifies the capability of existing and proposed utilities and service systems to serve the project, discusses the potential for accidental risks associated with project facilities, and recommends mitigation measures to reduce or eliminate significant impacts. The discussion contained in this section is based upon utility master plans and available background information on service systems in the area. Detailed analyses of environmental issues related to construction of new utility systems proposed within the development and off-site utility corridors (i.e., pipelines) are fully evaluated in other sections of the EIR.

As discussed in the Initial Study (Appendix A), existing electricity, communication, and solid waste service providers would be capable of serving the project, and the project's demand would result in less-than-significant impacts on these facilities and services. These service capacity issues are not discussed further in the EIR.

### **3.4.1 Regulatory Setting**

The **Safe Drinking Water Act** (43 United States Code [USC] 300) protects public health by regulating the nation's public drinking water supply. It requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and groundwater wells. The U.S. Environmental Protection Agency (EPA) sets national health-based standards for drinking water to protect against both naturally occurring and man-made contaminants that may be found in drinking water. EPA has delegated its authority for enforcement of the act to the Department of Health Service (DHS) in California.

DHS adopts and enforces primary and secondary drinking water standards consistent with drinking water standards established by the EPA under the Safe Drinking Water Act and the DHS Drinking Water Program. This program regulates public drinking water systems, oversees water recycling projects, permits water treatment devices, and certifies drinking water treatment and distribution operators.

In compliance with the **Porter-Cologne Water Quality Control Act** (Water Code Sec. 13000 et seq.; see Section 3.5 Hydrology and Water Quality), Regional Water Quality Control Boards (RWQCBs) issue Waste Discharge Requirements (WDRs) and National Pollution Discharge Elimination System (NPDES) permits for pollutant discharges to waters of the state. Pollutant discharges to high quality waters are subject to the State Water Resources Control Board (SWRCB) non-degradation policy (Resolution 68-16) for high quality waters. Types of discharge include sewage, pollutants associated with construction sites and urban development, and fill material placed in waters of the state. The project would involve surface discharges to waters of the state and would be subject to permitting by the Central Valley RWQCB.

The **Uniform Building Code** (UBC) is a widely adopted model building code in the United States. The California Building Standards Code (Title 24, Code of California Regulations) incorporates the UBC by reference and includes necessary criteria for designing facilities to minimize risks to the public and environment.

The **City of Placerville General Plan**, Public Facilities and Services Element, provides goals for maintaining adequate service levels for water supply, sewage collection and disposal, and drainage (City of Placerville 1989a). Policies within these goals include upgrading water lines, promoting water conservation, assessing a capital improvement fee for water and sewer system improvements, upgrading and providing adequate sewer lines, and improving the drainage system within the City.

### **3.4.2 Environmental Setting**

#### **Water Supply System**

El Dorado Irrigation District (EID) provides potable and recycled water to most of El Dorado County, including more than 100,000 residents (EID 2006). EID's water supply system consists of 1,200 miles of pipeline, 40 miles of ditches, six treatment plants, 33 storage reservoirs, and 21 pumping stations. The City of Placerville is within EID's Eastern Service Area and currently receives treated water from EID's Jenkinson Lake at Sly Park, approximately 13 miles east of Placerville. Pipelines distribute the water from Jenkinson Lake to the City's water service area, which generally corresponds to the city limits, excluding some areas. As defined in Section 15155(a)(2) of the State CEQA Guidelines, EID is the public water system serving the project.

EID has the capability of supplying up to 20,920 acre-feet of water from Jenkinson Lake, with a total available water supply of 36,000 acre-feet for the entire Western/Eastern Service Area (EID 2007). Based on water meter readings, 34,593 acre-feet of water were allocated in 2006. EID is contractually committed to providing up to 526 acre-feet (equates to 907 equivalent dwelling units) of the remaining unallocated 1,407 acre-feet to proposed developments through 2009. The remaining uncommitted water (881 acre-feet or 1,519 equivalent dwelling units) would be available for other developments not considered in the 2009 projections, such as the proposed project.

The City's potable water storage system consists of a 40,000-gallon storage tank and 39 miles of distribution pipelines (Kennedy/Jenks Consultants 2005). The City formerly treated EID water using several treatment facilities, but it abandoned the facilities when EID completed improvements to the potable water storage reservoirs in late 2003 to comply with DHS regulations. The City now receives treated water directly from EID without any subsequent treatment and distributes it directly to its customers.

The project area is located between the City's Main Service Zone and Sierra Service Zone (Kennedy/Jenks Consultants 2005). The Main Service Zone was previously served by the Main Treatment Plant and encompasses most of the City. Water is now supplied to this zone via an EID-operated pressure-sustaining valve station located southwest of the project area; several City-operated pressure-reducing valve stations provide flow regulation throughout the zone. The Sierra Service Zone was previously served by the Sierra Plant and encompasses a small development in the extreme southeast portion of the City. This zone contains a City-operated pressure-reducing valve and a 40,000-gallon water storage tank. The nearest water supply pipelines include a 6-inch pipeline located within Wiltse Road that ends just outside the project area, a 6-inch pipeline within Barrett Drive and Country Club Drive to the south, and an 8-inch pipeline within Broadway northeast of the project area near the proposed Canyon View Drive intersection.

The City recently completed a Water Master Plan to evaluate the system's hydraulic characteristics and identify existing and future deficiencies (Kennedy/Jenks Consultants 2005). The Master Plan projects future water demand in the City's service area, which includes the proposed Lumsden Ranch development. Water demand in the City's service area in 2004–2005 was estimated at 1,118 gallons per minute (gpm) (average day demand [ADD]) and 3,448 gpm (peak hour demand) according to the Master Plan. Projected water demand for the entire service area based on proposed or anticipated projects in the City is estimated at 1,281 gpm (ADD) in 2009 and 1,488 gpm (ADD) in 2015 (ultimate demand). The ultimate demand included an assumption of 350 units within the Lumsden Ranch development.

## **Wastewater and Sewer System**

The City of Placerville provides wastewater treatment and sewer service to more than 3,000 residential and commercial customers in the city limits (City of Placerville 2007). The City's sewer service area includes the sphere of influence (based on build-out projections), although existing infrastructure is limited to the current service areas within the city limits. Projects outside the city limits must be annexed prior to being served by the City.

Sewer trunk lines follow major roads in the city, and the nearest trunk line runs along Broadway, just north of the project area. A 6-inch collection line within Wiltse Road conveys wastewater generated by the residences on Wiltse Road to the Broadway sewer trunk line. The upper end of this collection line is located near the intersection of Wiltse Road and the Lumsden Park access road. No sewer lines currently extend into the project area. The existing residences in the project area use septic tanks.

The City operates the Hangtown Creek Water Reclamation Facility (WRF), located off Cool Water Creek Road approximately 4 miles northwest of the project area. The WRF

discharges treated effluent to Hangtown Creek. The WRF has a permitted capacity of 2.3 million gallons of wastewater per day (mgd) during dry weather conditions and up to 5.7 mgd during wet weather conditions (Pesses 2007). Current flows are estimated at 1.0 to 1.3 mgd during dry weather (Pesses 2007). The City expects flows will increase to more than 1.6 mgd (dry weather) in 25 years at build-out of the land uses assumed in the report, including Lumsden Ranch (Holmes International 2006).

The WRF is currently undergoing improvements to comply with state and federal effluent quality standards and to reduce the temperature of the effluent (City of Placerville 2005). These improvements are scheduled for completion in 2009.

The City is in the process of preparing a Wastewater Collection System Master Plan. The first phase of this effort involved an evaluation of the City's trunk sewer system based on existing and projected land uses in the service area. According to the Phase 1 Summary Report, large storm events can cause inadvertent groundwater infiltration and stormwater inflow into the City's sewer system. Infiltration/inflow occurs when storm-related groundwater and surface runoff enters the sewer system through pipe cracks, manhole lids, or connected catch basins. Infiltration/inflow is problematic because it can increase flows to the City's WRF by up to 8 mgd during large storm events (20-year), thereby exceeding the permitted wet weather capacity of the WRF. During extreme wet weather events, infiltration/inflow can also cause sewer surcharge, where water and wastewater within certain sections of sewer lines exceeds the sewer line capacity and is inadvertently released through manholes. To prevent these sewer overflows, the Phase 1 Summary Report recommends upsizing, rehabilitation, or replacement of about 16,000 feet of existing sewer trunk line to reduce entry of infiltration or inflow. This includes a substantial section of the sewer trunk line that runs along Broadway west of Wiltse Road (Holmes International 2006). Capital connection fees assessed by the City on all new sewer connections provide funding for wastewater and sewer system upgrades.

### **Storm Drain System**

The City of Placerville maintains a series of open ditches and drainages throughout the city to convey stormwater from developed and undeveloped areas. Many of the ditches and drainages are remnants of former natural streams and creeks that conveyed runoff from the surrounding foothills to the American River downstream. The primary drainage in the City is Hangtown Creek; this creek generally follows Broadway until it drains into Weber Creek about 3 miles northwest of the City. The creek has been channelized along most of its reach, is diverted to underground pipelines and through culverts, and is lined with concrete in some areas where development required modifications to the natural drainage. Flows in Hangtown Creek just north (downstream) of the project area during 10-year storm events range from 912 cubic feet per second (cfs) at Wiltse Road to 1,751 cfs at Cedar Ravine Road, approximately 1 mile downstream (Domenichelli and Associates 2007 [Attached as Appendix C]). Major storm events (100-year storm) increase flows to 1,686 cfs to 3,219 cfs at these two points, respectively.

Runoff in the project area is conveyed to the northwest via several ephemeral drainages that are tributary to Hangtown Creek. These drainages follow the natural topography of the area. One unnamed drainage conveys flows from the southern portion of the project area to Lumsden Lake in Lumsden Park. Other unnamed drainages convey flows from the northern portion of the project area into an unnamed drainage along Wiltse Road.

These drainages converge just north of Lumsden Park and drain into Hangtown Creek at the Wiltse Road–Broadway intersection. Estimated existing flows at the convergence point near the park are 58 cfs during 10-year storm events and 131 cfs during 100-year storm events (Domenichelli and Associates 2007).

### **Natural Gas and Propane Service**

Natural gas service is not currently provided in Placerville. Commercial propane service is commonly used by Placerville residences and businesses; propane is delivered by truck to individual or centralized storage tanks.

### **3.4.3 Impact Analysis**

#### **Methodology**

The impact analysis evaluates the ability of each utility system to service the project's residential uses based on the system's available or planned capacity and facilities to be constructed as part of the project. The analysis of impacts on the City's storm drain system is based on the drainage report prepared by Domenichelli and Associates (Appendix C of this EIR). Potential risks associated with use of propane storage tanks were evaluated based on design criteria and regulatory requirements.

#### **Levels of Significance**

Adverse impacts related to utilities and service systems would be considered significant if the proposed project would involve a risk of accidental explosion related to propane facilities or result in a need for new systems or supplies, or substantial alterations to, the following utilities:

- Local or regional water treatment or distribution facilities
- Sewer or septic tanks
- Stormwater drainage
- Propane service

#### **Impacts and Mitigation Measures**

**Impact U-1: The project would increase water supply demand by 110 gallons per minute, but El Dorado Irrigation District would be capable of providing the required water, and existing and proposed facilities would have capacity to meet water demand and ensure adequate water pressure continues to be delivered to existing homes.**

The project would require an average day demand of approximately 110 gpm with available fire flows of up to 1,000 gpm for residences (based on 366 single-family residential units requiring 0.3 gpm per unit) (Kennedy/Jenks Consultants 2005). This demand is slightly higher than the anticipated demand for the Lumsden Ranch development (105 gpm with 1,000 gpm fire flow) in the Water Master Plan (Kennedy/Jenks Consultants 2005); however, the small difference (5 gpm) is minimal, and the project's demand would still be met by the City's projected water demand for its

ultimate system in 2015. In addition, the project's demand, based on 366 single-family residential units, would fall within EID's unallocated and uncommitted available water supply of 881 acre-feet (1,519 equivalent dwelling units), assuming each unit is served by a 0.75-inch water meter (EID 2007). According to the Water Master Plan (Kennedy/Jenks Consultants 2005), EID is expected to be capable of providing adequate water supply for the City's projected 2015 demands (total of approximately 1,488 gpm). The El Dorado County Fire Protection District will require fire flows of up to 1,500 gpm for the proposed clubhouse because it is considered a commercial use.

The potential effects of future climate change on California's water supply include reduced Sierra snowpack, reduced water supplies, and increased water demands (CCCP 2007). Therefore, reduced water supplies from future climate change could affect EID's ability to provide water to residential development within its service area (including the project), albeit to an unknown degree. A Drought Preparedness Plan was completed in early 2008 to identify actions and procedures for preparing for, identifying, and responding to a drought to preserve essential public services and minimize the effects of a water shortage on public health and safety, economic activity, environmental resources, and individual lifestyle (Brown and Caldwell 2008). This plan includes a presentation of different climate change scenarios and considers the effects of climate change on EID's water supply.

The project would connect into the City's existing system at four locations: Wiltse Road, Broadway (at the proposed Canyon View Drive intersection), Country Club Drive, and Barrett Drive. The project's internal water distribution system has been sized to provide adequate flow pressure for the project's demand, including fire flow requirements. The desirable range of pressure for a water system is from 40 pounds per square inch (psi) (minimum) up to the rated pressure of the pipeline. For the project, static pressures would range from 63 psi to 130 psi, assuming two pressure zones and two on-site pressure-reducing stations (Gene E. Thorne and Associates 2007a). Because of the increase in demand on the existing water distribution system surrounding the project, project implementation could reduce flow pressure at adjacent developments relying on the same main pipelines, especially in emergency (fire) situations. If deemed necessary by the City, the project's water delivery system would include pressure-sustaining valves to ensure adequate water pressure continues to be delivered to existing homes in established upstream pressure zones (i.e., 20 psi residual pressure with 1000 gpm flow).

The existing city pipelines would be capable of providing the project's water supply (including required fire flow) without modifications, but specific locations for connections to the project's system would need to be further evaluated to ensure adequate pressure, based on the Water Model Evaluation for the project (Gene E. Thorne and Associates 2007a, 2007b). These connections would be part of the project design and would not require alterations to the existing city pipelines.

In summary, the project's water demand falls within the City's and EID's future demand projections, and the City's existing system would be capable of serving the project. Also, pressure-sustaining valves would ensure adequate water pressure continues to be delivered to existing homes in established upstream pressure zones. Impacts relating to water supply service would be less than significant.

**Level of Significance Before Mitigation: Less than significant because EID and the City would be capable of serving the project and because pressure-sustaining**



**valves would ensure adequate water pressure continues to be delivered to existing homes in established upstream pressure zones.**

**Impact U-2: The project would increase wastewater volumes by 0.09 million gallons per day. Existing and proposed facilities would be capable of treating and conveying the increased volume of wastewater during typical weather conditions, but project wastewater could contribute incrementally to existing problems caused by infiltration/inflow during severe storm conditions.**

The project would generate an average volume of wastewater of approximately 0.09 mgd, based on 366 single-family units generating 240 gallons per day (gpd)/unit (Holmes International 2006). The WRF currently has about 1 mgd of remaining capacity, and would be able to accommodate project wastewater, except during severe storm conditions when flows currently exceed the WRF's permitted wet weather capacity. As discussed above, infiltration/inflow can increase flows to the WRF by up to 8 mgd during large storm events (20-year), thereby exceeding the permitted wet weather capacity of the WRF. Wastewater generated by the project would contribute incrementally (0.09 mgd) to this existing problem.

The project would also contribute wastewater to a sewer system that is subject to occasional sewer surcharge. As discussed above, during extreme wet weather events, infiltration/inflow can cause sewer surcharge, where water and wastewater within certain sections of sewer lines exceeds the line capacity and is inadvertently released through manholes. The City's Phase 1 Summary Report recommends upsizing, rehabilitation, or replacement of about 16,000 feet of existing sewer trunk line to reduce entry of infiltration or inflow. This includes a substantial section of the sewer trunk line that runs along Broadway west of Wiltse Road. As discussed in EIR Section 2.3.3, the City has determined that a portion of the existing sewer line that runs along Hangtown Creek between Wiltse Road and Main Street does not have adequate capacity to serve the project. Therefore, about 0.6 mile of new sewer trunk line within Broadway would be constructed to replace this section of sewer line. The City's Phase 1 Summary Report also recommends upgrading this section of sewer line to help reduce infiltration/inflow into the sewer system and thereby reduce sewer overflows.

The project would construct or fully fund its fair share of the off-site improvements necessary to ensure the City's system has adequate capacity to serve the project under typical conditions (i.e., Wiltse Road and Broadway sewer lines). Also, the new section of sewer trunk line to be constructed for the project within Broadway would reduce infiltration/inflow, thereby helping to reduce problems caused by infiltration/inflow. It is not possible, however, to determine whether the project's contribution of wastewater (0.09 mgd) to the existing infiltration/inflow problems at the WRF or along the sewer trunk lines would be fully mitigated by construction of the new sewer trunk line. Therefore, this impact is considered significant and unavoidable.

**Level of Significance Before Mitigation: Significant and unavoidable because the project would construct or fully fund its fair share of the off-site improvements necessary to ensure the City's system has adequate capacity to serve the project under typical conditions, but the project could contribute to exceedance of existing capacity during severe storm conditions. No additional mitigation is available.**

**Impact U-3: The project would increase stormwater runoff by approximately 30 cubic feet per second, and one of the proposed detention basins would require modifications to adequately detain and convey the increased runoff.**

The project would increase impervious surfaces in the project area, resulting in an increase in stormwater runoff. Without detention basins, the increase in runoff would increase flows in the downstream drainage along Wiltse Road by up to 23 cfs during the 10-year storm event and 34 cfs during the 100-year storm event (at the convergence of the drainages north of Lumsden Park; Domenichelli and Associates 2007). Flows in Hangtown Creek would also increase incrementally as a result of project runoff.

The project includes two detention basins, located at the western end of the project area along existing natural drainage courses. Certain modifications to one of the proposed detention basins, however, would be required to ensure the basins hold the volume of water delivered by a 100-year, 24-hour storm and regulate stormwater release rates in a manner that would prevent an increase in the water surface profile along Hangtown Creek through downtown to the point where the creek crosses under U.S. 50. According to the drainage report by Domenichelli and Associates, the surface water of Detention Basin B (referred to as Detention Pond-1 in the drainage report) must be increased by about 2.5 feet, and relocated about 275 feet upstream (to the southeast) to ensure ponded stormwater does not flood the street upstream of the proposed detention basin.

Without these recommended modifications, increased runoff generated by the project would strain the capacity of the City's storm drain system along Wiltse Road downstream of the project area and could require improvements to the City's drainage system. This would be a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure U-3: Modify Detention Basin B to increase capacity.*

The City will require the applicant to modify the design of Detention Basin B to comply with the recommendations of the drainage report prepared by Domenichelli and Associates to ensure the basins hold the volume of water delivered by a 100-year, 24-hour storm and regulate stormwater release rates in a manner that would prevent an increase in the water surface profile along Hangtown Creek through downtown to the point where the creek crosses under U.S. 50. With these modifications to the on-site detention basins, stormwater runoff from the project would be regulated to reduce the rate of flows to pre-project levels.

**Level of Significance After Mitigation: Less than significant because the detention basins would ensure flows in the downstream drainages do not exceed current rates; therefore, project runoff would not cause the City's stormwater facilities to exceed their capacity.**

**Impact U-4: Propane storage tanks in the project area would have a minor risk of explosion, resulting in minimal impacts to project residents.**

The project may include an on-site propane storage and delivery system, which could include centralized underground storage tanks to serve about 57 residential units in the northern portion of the development and either five large underground storage tanks and

underground distribution lines located in the street system or individual aboveground propane tanks located within each lot to serve the remaining units and the clubhouse. The City, however, highly discourages aboveground individual propane tanks.

Although unlikely, the tanks or pipeline system could rupture if damaged by accidents such as a vehicle collision or inadvertent excavation. Propane accidents typically do not result in an explosion, but accidents involving aboveground tanks could cause uncontrolled dislocation of the tank, posing a safety concern for nearby residents. The propane system would comply with applicable fire, safety, and building codes to ensure minimal risk to project residents. For example, all aboveground storage tanks would be set back from lot lines and buildings and would be surrounded by crash protection devices, such as bollards or large boulders. Based on the design features and compliance with applicable codes, the project's propane system would pose minimal risks to project residents and would result in a less-than-significant impact.

**Level of Significance Before Mitigation: Less than significant because the propane system would be designed to comply with applicable codes, minimizing the risk to residents.**

### **Significant and Unavoidable Impacts**

**Impact U-2: The project would increase wastewater volumes by 0.09 million gallons per day. Existing and proposed facilities would be capable of treating and conveying the increased volume of wastewater during typical weather conditions, but project wastewater could contribute incrementally to existing problems caused by infiltration/inflow during severe storm conditions.**

## **3.5 HYDROLOGY AND WATER QUALITY**

This section describes surface and groundwater resources in the project vicinity. The impact analysis discusses the potential for the project to affect surface and groundwater quantity and quality. Mitigation measures are identified for significant impacts, followed by determinations of the residual impact significance after mitigation measures are implemented.

Impacts on storm drain systems are evaluated in Section 3.4 (Utilities and Service Systems). As discussed in the Initial Study (Appendix A), the project would not expose people or property to hazards associated with 100-year flooding, and the project would not utilize groundwater as its water supply source. These issues are not discussed further in the EIR.

### **3.5.1 Regulatory Setting**

#### **Federal**

The Clean Water Act (CWA) (33 USC 1251–1376), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Important sections of the CWA are as follows:

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines.
- Section 401 (Water Quality Certification) requires an applicant for any federal permit that proposes an activity that may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the Act.
- Section 402 establishes the NPDES, a permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States.
- Section 404 establishes a permit program for the discharge of dredged or fill material into waters of the United States. This permit program is jointly administered by the U.S. Army Corps of Engineers (USACE) and the EPA.

In California the NPDES program is administered by the SWRCB. The SWRCB or RWQCB issues permits on behalf of the EPA for activities that could cause impacts to surface and groundwater sources, including construction activities. The SWRCB also administers water rights, water pollution control programs, and water quality functions throughout the state. Regional authority for planning, permitting, and enforcement is delegated to nine RWQCBs. The RWQCBs are required to formulate and adopt water quality control plans for all areas within their respective regions and establish water quality objectives in the water quality control plans, issue WDRs, take enforcement action against violators, and monitor water quality. The project area lies within the jurisdiction of the Central Valley RWQCB.

As mandated by the Safe Drinking Water Act (SDWA, Public Law 93-523) passed in 1974, the EPA regulates contaminants of concern to domestic water supply. Contaminants of concern relevant to domestic water supply are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. EPA regulates these types of contaminants through the development of national primary and secondary maximum contaminant levels (MCLs) for finished water. In California, the Department of Health Services administers the SDWA.

## **State**

The Porter-Cologne Water Quality Control Act (Act) is California's statutory authority for the protection of water quality (California Water Code Sec. 13000 et seq.). Under the Act, the state must adopt water quality policies, plans, and objectives that will provide protection to the state's waters for the use and enjoyment of the people of California. The Act sets forth the obligations of the RWQCBs pertaining to the adoption of water quality control plans (Basin Plans) (California RWQCB 1998) and establishment of water quality objectives, and authorizes the SWRCB and RWQCBs to issue and enforce permits containing WDRs. Basin Plans are the regional water quality control plans required by both the Clean Water Act and the Porter-Cologne Act in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Act requires the RWQCBs to issue WDRs for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of surface or groundwater of the state.

The SWRCB and RWQCB enforce the NPDES program under the Clean Water Act. As part of this program, projects that would disturb more than one acre of land are required to obtain coverage under the General Permit for Discharges of Stormwater Associated

with Construction Activity (Construction General Permit, 99-08-DWQ). Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation. For the project area, coverage under this permit would be obtained from the Central Valley RWQCB.

To obtain coverage under the Construction General Permit, a Stormwater Pollution Prevention Plan (SWPPP) must be developed and implemented to comply with conditions of the General Permit. The SWPPP must include site-specific information on erosion and sediment controls and must list best management practices (BMPs) that will be installed to reduce pollutants and meet water quality standards. As part of the SWPPP, the applicant must implement Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate stormwater pollution. Dischargers must also comply with water quality objectives as defined in the Basin Plan (California RWQCB 1998). The Resource Conservation District will review the plans for erosion and sediment control.

In 1994, the Water Quality Control Plan–Central Valley Region Sacramento and San Joaquin River Basins (the Basin Plan) was adopted by the Central Valley RWQCB (California RWQCB 1998). The Basin Plan lists general beneficial uses for water bodies in the Sacramento River Basin. Adverse effects to these beneficial uses should be carefully considered during the review of a proposed project. Beneficial uses are the desired resources, services, and qualities of the aquatic system that are supported by achieving and protecting high water quality. Beneficial uses are specific to the water body and can vary from water body to water body. Where beneficial uses have not been assigned to a specific water body, the tributary rule applies. The tributary rule applies the beneficial uses of the nearest downstream water body to the specified water body.

Primary issues for waters in the Central Valley region are associated with construction impacts of erosion and sedimentation from the project, stormwater management (including detention and treatment), groundwater contamination, wetlands disturbance, and compliance with prohibitions on waste discharges due to land development. The discharge prohibitions and limitations in permits are designed to ensure the maintenance of public health and safety, protection of receiving water resources, and safeguarding of the designated beneficial uses (RWQCB 1998).

## **Local**

The Health and Safety Element of the **Placerville General Plan** addresses a wide range of environmental hazards (City of Placerville 1989a). The overall goal of the Health and Safety policies is to minimize the public health and safety threats and nuisances to residents and minimize the potential for property damage and loss. The Public Facilities and Services Element includes a goal to maintain an adequate level of service in the drainage system to accommodate runoff and prevent damage from flooding. The Natural, Cultural, and Scenic Resources Element identifies a goal to conserve water resources and protect water quality and includes policies to reduce pollutants in water quality and minimize erosion and silt flow.

The City of Placerville implements its stormwater regulations through Water Quality Order No. 2003-01005-DWQ NPDES General Permit No. CAS000004 Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Sewer

Systems (General Small MS4 Permit) under the authority of the RWQCB. The City developed a **Stormwater Management Plan** (SWMP) in compliance with the General Small MS4 Permit (Owen Engineering and Management Consultants 2005). The SWMP outlines BMPs for stormwater runoff management, discharge detection and elimination, stormwater management in new developments, as well as methods for monitoring and reporting of stormwater discharge pollutants.

The **Placerville City Code** contains codes and ordinances which govern development within the City. Title 8, Chapter 7 of the City of Placerville Municipal Code addresses Grading, Erosion and Sediment Control and is also known as the Grading Ordinance of the City of Placerville (Ord. 1523, 4-11-1995). Title 8, Chapter 7 sets forth rules and regulations to control excavation, grading and earthwork construction, including fills and embankments; establishes the administrative procedures for issuance of permits; and provides for approval of plans and inspection of grading construction and all grading specific to single parcel site improvements, except single-family residence construction unless exceeding prescriptive standards as defined in the city's design and improvement standards manual. The proposed project would be required to comply with the provisions of the Grading Ordinance.

### **3.5.2 Environmental Setting**

#### **Regional Hydrology**

With respect to surface water, the project area is located within the Sacramento River Hydrologic Region, which encompasses approximately 26,500 square miles. The Sacramento River Basin is bounded by the Sierra Nevada to the east, the Coast Range to the west, the Cascade Range and Trinity Mountains to the north, and the Delta area to the south. The average runoff from the basin is estimated to be 21.3 million acre-feet per year.

The project area is located within the American River Basin, a subunit of the Sacramento River Basin. The South Fork of the American River is the principal stream in the Region and is located approximately 13 miles west of the project area. The melting snow pack in the Sierra Nevada, in combination with the operation of numerous reservoirs within the system, maintains flow in the American River year round. Beneficial uses for surface waters of the region include municipal, agricultural, industrial, and recreational uses, freshwater habitat, migration and spawning, and wildlife habitat (RWQCB 1998). More locally, the project area is located within the Weber Creek subbasin and Hangtown Creek planning watershed (California Interagency Watershed Map).

The climate in the region is semi-arid with hot, dry summers and wet, mild winters. Surface runoff from the project area results mainly from precipitation, which occurs principally from November through April with an average annual precipitation for the area of 38.51 inches and an average annual snowfall of 2.7 inches. Extreme precipitation events are characterized by relatively long periods of intense rainfall resulting from ascending airflow caused by the terrain (orographic lifting).

With respect to groundwater resources, the project area is not situated within a recognized California groundwater basin or subbasin. The nearest recognized groundwater basin, the South American Groundwater Subbasin (5-21.65), is located approximately 20 miles west-southwest and downstream of the project area. This does

not imply that groundwater resources do not exist in the vicinity of the project area. Groundwater likely occurs in isolated pockets, including the shallow alluvial materials associated with surface waters or fractures in the underlying bedrock.

## **Surface Water Resources**

### Hydrology

Surface runoff from the project area is conveyed through several natural drainages in the project area into Hangtown Creek and eventually into Weber Creek and the South Fork of the American River. The majority of the project area drains to the northwest. Runoff from the existing dirt road (where Canyon View Drive is proposed) drains to the northeast into an unnamed tributary of Hangtown Creek. In addition to natural drainages in the project area, El Dorado Irrigation District's Main Ditch collects surface runoff in some locations within and adjacent to the project area and conveys it into the project area (Domenichelli and Associates 2007). The Main Ditch runs parallel to the southern project boundary and has not been regularly maintained since being abandoned, resulting in several blockages that cause water to collect in the ditch and flow into the project area.

Hangtown Creek is located approximately 1,000 feet to the north of the project area and conveys flows from east to west through Placerville. It flows into Weber Creek approximately 5 miles northwest of the project area. Weber Creek later flows into the South Fork of the American River at a confluence approximately 8 miles further west. After flowing into Folsom Lake, the American River joins the Sacramento River, which flows into San Francisco Bay and the Pacific Ocean.

### Water Quality

Considerable erosion and sediment production occurs within the Sacramento River Hydrologic Region based upon water quality reports for the Sacramento River. A significant area of concern that has been identified as a source of suspended sediment is bare soil associated with construction sites. Runoff from urban areas has also been identified as a water quality concern.

The Basin Plan (California RWQCB 1998) establishes beneficial uses of waters within the Central Valley and water quality objectives to achieve or maintain those uses. Table 3.5.1 is an inventory of beneficial uses for the American River.

## **Groundwater**

The project is not located within a groundwater basin or subbasin (Integrated Regional Water Management Plan [IRWMP]; Regional Water Authority 2006), no public information is available describing specific aquifers in the project area (California Department of Water Resources [DWR] 2007), and no public data on groundwater levels, quality or well records is available in the vicinity of the project area. Several seeps, springs, and seasonal wetlands occur along drainages in the southeastern portion of the project area, indicating the presence of groundwater. Groundwater resources at the project area, however, are not expected to be substantial.

The State's Underground Storage Tank (UST) Cleanup Fund lists six leaking underground fuel tank contamination sites along Broadway where the new sewer trunk line would be constructed: Chevron at 1361 Broadway, Beacon at 1312 Broadway, A-Mart at 1296 Broadway, Union Oil Bulk Plant at 1145 Broadway, Beacon at 1178 Broadway, and Former Placerville Cleaners at 1261 Broadway. Former Placerville Cleaners is also listed as a Cleanup Program Site (SWRCB 2007). In this area, groundwater is known to occur at depths less than 10 feet below ground surface (SWRCB 2007).

**Table 3.5-1. Beneficial Uses and Support Characteristics of the American River**

Surface Water	Beneficial Use	Type of Use	Support
American River	Municipal	Municipal & Domestic Supply	Existing
	Agriculture	Irrigation	Existing
	Industry	Service Supply	Proposed and Existing
		Power	Existing
	Recreation	Contact	Existing
		Canoeing and Rafting	Existing
		Other Noncontact	Existing
	Freshwater Habitat	Warm	Existing
		Cold	Existing
	Migration	Warm	Existing
		Cold	Existing
	Spawning	Warm	Existing
		Cold	Existing
Wildlife	Wildlife Habitat	Existing	

Source: RWQCB 1998.

### 3.5.3 Impact Analysis

#### Methodology

The environmental setting is based on a review of available literature, including:

- Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (RWQCB 1998)
- Placerville General Plan (1989)
- El Dorado County Water Agency Water Resources Development and Management Plan – Draft (2007)
- American River Basin Integrated Regional Water Management Plan (Regional Water Authority 2006)
- El Dorado Irrigation District Administrative Draft Water Supply Master Plan (2001)



- City of Placerville Storm Water Management Plan (2005)
- Drainage Report – Lumsden Ranch Development Project (2007)

The impact analysis evaluates the proposed land uses and construction activities to determine potential effects on existing surface and groundwater resources in the project vicinity. The significance of each impact was evaluated using the thresholds identified below, and mitigation measures were identified to reduce significant impacts.

### **Levels of Significance**

Adverse impacts to hydrology and water quality would be considered significant if the project would:

- Result in a discharge into surface waters, causing substantial alteration of surface water quality (e.g. temperature, dissolved oxygen, or turbidity).
- Substantially change absorption rates, drainage patterns, or the rate and amount of surface runoff.
- Substantially change the amount of surface water in any water body.
- Change the currents or the course or direction of water movements.
- Substantially change the quantity of groundwaters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or through substantial loss of groundwater recharge capacity.
- Substantially alter direction or rate of flow of groundwater.
- Impact groundwater quality.

### **Impacts and Mitigation Measures**

#### **Impact HWQ-1: Construction activities could discharge pollutants into downstream drainages, resulting in adverse effects on surface water quality.**

Construction of the project would involve clearing and grading approximately 58 acres within the project area (residences, clubhouse, and roads), with additional grading occurring where utility pipelines and facilities are needed outside of the residential area. Mass grading for house pads, vehicular accesses, drainage, utilities, and other site amenities is proposed. Off-site sewer construction would involve approximately one half mile of trenching, sewer line installation, and backfill within Wiltse Road and within Broadway between Wiltse Road and Main Street.

Construction activities, such as clearing, grading, stockpiling soils, pouring concrete, and road building, would contribute substantial pollution to runoff and result in adverse short-term effects on surface water quality in downstream drainages (i.e., Hangtown Creek). Excessive erosion and sedimentation are the most noticeable water quality impacts caused by construction activities. These impacts result from soil disturbance and exposure and can result in discharge of soil particles into surface waters. Other less visible impacts are associated with off-site discharge of pollutants, such as metals, nutrients, soil additives, pesticides, construction chemicals, and other construction waste. Soil disturbance associated with construction would be temporary because the disturbed ground surface would be paved in the residential and commercial areas and

would be revegetated in open space areas. Discharge of construction pollutants, although temporary, could result in substantial adverse effects on downstream surface water quality, which would be a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure HWQ-1: Implement best management practices to control construction-related stormwater runoff, erosion, sedimentation, and off-site tracking of mud from vehicles.*

The City will require the applicant to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity from the Central Valley RWQCB. As part of the permit application, the applicant will submit a SWPPP for approval by the RWQCB. The SWPPP will identify the sources of sediment and other pollutants on site and ensure the reduction of such pollutants in stormwater discharged from the site. The SWPPP will include an Erosion and Sedimentation Control Plan and provide descriptions of BMPs selected to control erosion, sediment discharge, and other pollutant sources during construction. The SWPPP will be approved by the RWQCB prior to any ground-disturbing activities and will comply with the City's SWMP, and appropriate BMPs will be implemented throughout the duration of construction activities.

Typical BMPs may include the following:

- Use temporary erosion control measures (such as silt fences, staked straw bales, and temporary revegetation) in disturbed areas, and ensure no disturbed surfaces are left without erosion control measures in place during the winter and spring months.
- Retain sediment on-site by a system of sediment basins, traps, or other appropriate measures.
- Develop a spill prevention and countermeasure plan to identify proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, etc.) used on-site.
- Schedule construction activities to minimize land disturbance during peak runoff periods and restrict to the immediate area required for construction.
- Implement soil conservation practices during the fall or late winter to reduce erosion during spring runoff, and retain existing vegetation where possible.
- Control surface water runoff by directing flowing water away from critical areas and by reducing runoff velocity; use diversion structures such as terraces, dikes, and ditches to collect and direct runoff water around vulnerable areas to prepared drainage outlets; use surface roughening, berms, check dams, hay bales, or similar devices to reduce runoff velocity and erosion.
- Contain sediment when conditions are too extreme for treatment by surface protection; use temporary sediment traps, filter fabric fences, inlet protectors, vegetative filters and buffers, or settling basins to detain runoff water long enough for sediment particles to settle out; store, cover, and isolate construction materials, including topsoil and chemicals, to prevent runoff losses and contamination of groundwater.

- Store and treat topsoil removed during construction as though it is an important resource, and place berms around topsoil stockpiles to prevent runoff during storm events.
- Establish fuel and vehicle maintenance areas away from all drainage courses and design these areas to control runoff.
- Control off-site tracking of mud by using a stabilized construction entrance and cleaning up any sediment that reaches the road.
- Revegetate disturbed areas after completion of construction activities.

**Level of Significance After Mitigation: Less than significant because implementation of construction BMPs would reduce adverse effects on downstream surface water quality.**

**Impact HWQ-2: Off-site sewer line construction could result in discharge of pollutants from contaminated soil below Broadway to surface water, affecting water quality.**

Construction of this project would involve approximately 0.6 mile of trenching, sewer line replacement, and backfill within Broadway between Wiltse Road and Main Street. The State's UST Cleanup Fund lists six leaking underground fuel tank contamination sites along Broadway where the new sewer trunk line would be constructed: Chevron at 1361 Broadway, Beacon at 1312 Broadway, A-Mart at 1296 Broadway, Union Oil Bulk Plant at 1145 Broadway, Beacon at 1178 Broadway, and Former Placerville Cleaners at 1261 Broadway. Former Placerville Cleaners is also listed as a Cleanup Program Site. In this area, groundwater is known to occur at depths less than 10 feet below ground surface.

Soil affected by petroleum contaminants has reportedly already been removed from four of six known leaky underground contaminant sites: the Chevron site, the A-Mart site, the Union Oil Bulk Plant site, and Former Placerville Cleaners (SWRCB 2007). However, soil or groundwater removed from these areas during construction could contain elevated levels of petroleum contaminants for the UST sites and tetrachloroethylene, chlorinated solvents, and volatile organic compounds for the Former Placerville Cleaners site which could then be inadvertently discharged into nearby surface waters (Hangtown Creek). The potential for contaminants to affect water quality would be a significant impact.

**Level of Significance Before Mitigation: Significant**

*Mitigation Measure HWQ-2: Develop a Soil Management Plan for testing, handling, containment, and disposal of contaminated soils in the event that any are excavated from the area.*

The City will require the applicant to develop a soil management plan and implement appropriate measures to properly dispose of and contain contaminated soils during construction of the off-site sewer line. In addition to the BMPs identified in Mitigation Measure HWQ-1, the elements of a Soil Management Plan would include provisions for testing soils as they are removed from the area of the UST sites and the Former Placerville Cleaners is also listed as a Cleanup Program Site. Tests would be performed for applicable contaminants, based on information from files at the State Underground Storage Tank Cleanup Fund and the results of an Initial Site Assessment (ISA) for the

City's Blairs Lane Bridge project. Applicable contaminants at the sites would likely be petroleum hydrocarbons for the UST sites and tetrachloroethylene, chlorinated solvents, and volatile organic compounds for the Former Placerville Cleaners site. Excavated soils from the area may be stockpiled in a contained area while contaminant testing is performed.

In the event that elevated levels of soil contaminants are encountered, the Plan would also include detailed protocols for handling of the soil, temporary on-site containment of contaminated soil to avoid polluting surface waters and groundwater, and protocol for disposing of any contaminated soils. Any contaminated soils removed from this area would not be returned to the ground, and would be removed from the project area to a site approved for receiving such materials. Temporary on-site containment measures may include soil berms, containers, and provisions for covering the soil mound from rain and wind exposure. Coordination and reporting with the El Dorado County Environmental Management Department will be required.

**Level of Significance After Mitigation: Less than significant because implementation of a soil management plan would ensure petroleum contaminants do not affect water quality.**

**Impact HWQ-3: Development in the project area would increase impervious surfaces, resulting in an increase in stormwater runoff, but would not adversely affect downstream surface waters.**

The project would result in the conversion of naturally vegetated areas to less pervious surfaces such as roads, roofs, and driveways. This would result in larger volumes of stormwater runoff flowing through the project area and downstream into Hangtown Creek and other surface waters. Downstream drainages (i.e., Hangtown Creek), however, would not be adversely affected by increased project runoff because the rate of runoff would be reduced to pre-project rates by two on-site detention basins (see Section 3.4).

The natural drainages would be preserved as open space and would convey runoff from the open space areas. Most of the runoff from the developed areas would be directed into the project's storm drain system, which would consist of curbs and gutters, drain lines, vegetated swales, and drainage outfalls. The runoff would be conveyed via underground drains into the proposed detention basins, avoiding the natural drainages. Runoff from the open space areas, and possibly a minor amount of runoff from the developed areas, would flow through the natural drainages and into the proposed detention basins. The minor increase in runoff in the natural drainages is not expected to increase erosion or bank cutting along the drainages. Additionally, the drainage pattern and flow direction in the project area is not expected to change because the natural drainages would be preserved as open space and surface runoff would continue to exit the project area to the northwest.

A minor amount of runoff along Canyon View Drive would be discharged into the unnamed tributary along Broadway; however, the increase in runoff is not expected to increase erosion or bank cutting or adversely affect the tributary.

Although the project would increase surface runoff, the project's drainage system and existing natural drainages would ensure project runoff has a minimal adverse effect on

downstream drainages. Impacts associated with increased surface runoff would be less than significant.

**Level of Significance Before Mitigation: Less than significant because the project's increased runoff would not adversely affect downstream drainages.**

**Impact HWQ-4: Stormwater runoff from the project area could convey urban pollutants and contaminants to downstream drainages, resulting in adverse effects on surface water quality.**

Development of the project area would result in the discharge of water quality contaminants, such as fertilizers, pesticides, grease, oil, nutrients, and contaminants from urban runoff, to surface water in Hangtown Creek and downstream waters, including the American River. Two detention basins would be constructed on site and would completely contain the "first flush" of stormwater runoff, preventing this portion of the flow from moving into downstream surface waters. This design allows settling of suspended materials and sediment in the stormwater runoff. However, other urban contaminants, such as oil and grease, are not necessarily reduced solely by the use of detention basins and retention of first flush volumes. The increased contaminant load would be significant because it could adversely affect downstream surface water quality.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure HWQ-4: Implement a Water Quality Control Program.*

The City will require the applicant to implement a water quality control program to reduce water quality contaminants in project runoff, thus minimizing the effects on water quality in Hangtown Creek and downstream surface waters. The program will identify stormwater BMPs to incorporate into project design and manage urban runoff and will comply with the City's SWMP. The program will be approved by the City and RWQCB prior to issuance of grading permits. At the discretion of the City and RWQCB, monitoring of stormwater runoff may be required to ensure surface water quality in downstream drainages is not substantially affected by the project.

A variety of stormwater BMPs are available for managing urban runoff. Stormwater BMPs are most effective when implemented as part of a comprehensive stormwater management program that includes proper selection, design, construction, inspection, and maintenance measures. Stormwater BMPs can be grouped into two broad categories: structural and non-structural. *Structural* BMPs are used to treat the stormwater at either the point of generation or the point of discharge to the stormwater sewer system or to receiving waters. *Non-structural* BMPs include a range of pollution prevention, education, institutional, management, and development practices designed to limit the conversion of rainfall to runoff and to prevent pollutants from entering runoff at the source of runoff generation. The City will require the project's homeowners association (or other established entity) to perform post-construction BMPs prior to the first storm of the fall/winter season. Such BMPs will include street sweeping, storm drain inlet cleanout, and cleaning of other stormwater facilities.

Table 3.5-2 provides a summary of a variety of commonly used structural and nonstructural stormwater BMPs. These BMPs will be among those evaluated for inclusion in the project's Water Quality Control Program.

**Level of Significance After Mitigation: Less than significant because implementation of a water quality control program would reduce urban pollutants in project runoff.**

**Table 3.5-2. Typical BMPs for Managing Post-construction Urban Runoff**

<b>BMP</b>	<b>Purpose</b>
General community outreach	Increase public awareness of the need to and how to control nonpoint source pollution
Constructed wetland basin or water quality basin	Permanent or temporary storage for regulating downstream releases to reduce pollutant discharge
Catch basin cleaning	Capture and remove sediment and debris such as trash and leaf litter
Commercial and retail space: good housekeeping	Reduce pollutants in runoff by using porous pavement or modular paving systems for vehicle parking lots, limiting exposure of materials and equipment to rainfall, spill cleanup, using dry cleanup techniques instead of wet techniques, and limiting direct runoff of rooftops to storm drains
Pesticide/herbicide use	Reduce the amount of pesticides that are carried by urban runoff through education and using alternatives to pesticides, such as an integrated pest management program and insecticide soap or natural bacteria
Street cleaning program	Remove a significant portion of pollutants contributed from streets and parking lots
Filtration systems	Remove contaminants found in runoff
Vegetated systems (biofilters)	Convey and treat either shallow flow (swales) or sheetflow (filter strips) runoff
Minimize directly connected impervious surfaces	Reduce amount of surface area directly connected to the storm drainage system by minimizing or eliminating traditional curbs and gutters
Pervious paving	Reduce stormwater runoff by allowing rainfall to infiltrate the ground

**Impact HWQ-5: The project would have a minimal effect on groundwater quantity and quality.**

Development of the project area would result in an increase in impervious surfaces, which would increase surface runoff and decrease groundwater recharge in the developed areas. Surface runoff that collects in the proposed detention basins would result in some percolation into the groundwater. Additionally, the open space areas and natural drainages would continue to contribute to groundwater recharge. The reduction in groundwater recharge would, therefore, be minimal.

The contaminants and pollutants in surface runoff could percolate into the groundwater aquifer through the unlined detention basins. However, the project area is not located in a known groundwater basin, and the effects on groundwater quality would be minimal.

The project is not expected to adversely affect groundwater recharge or quality; therefore, impacts would be less than significant.

**Level of Significance Before Mitigation: Less than significant because the project would have a minimal effect on groundwater quantity and quality.**

## Significant and Unavoidable Impacts

None.

### 3.6 GEOLOGY AND SOILS

This section describes the geology, soils, and mineral resources of the project area, identifies impacts to these resources, and recommends mitigation measures to reduce or eliminate significant impacts. The discussion contained in this section is based upon previous geologic studies and available literature.

As discussed in the Initial Study (Appendix A), impacts related to fault rupture, seismic shaking, ground failure, expansive soils, and unique physical features would be less than significant. These issues are not discussed further in the EIR.

As discussed in the Initial Study (Appendix A), there are no lands within the City of Placerville designated or zoned for agriculture. In addition, neither the project area nor any nearby properties support agricultural uses. The project, therefore, would not impact agricultural resources. This issue is not discussed further in the EIR. However, background information on soil characteristics as it relates to agricultural uses is discussed briefly in this section.

#### 3.6.1 Regulatory Setting

The 2007 **California Building Code** (Part 2 of Title 24, Code of California Regulations) is based on the 2006 International Building Code (IBC), which addresses the design and installation of building systems through requirements that emphasize performance. The California Building Code identifies building standards and seismic retrofit standards to reduce the potential for building or structural damage from earthquake activity. Revisions to the Code were made in 2007 and went into effect on January 1, 2008.

The **City of Placerville General Plan** includes a Natural, Cultural, and Scenic Resources Element and a Health and Safety Element that identify goals, policies, and implementation programs to minimize or avoid impacts to the public and property associated with geologic, soil, and mining hazards (City of Placerville 1989a). These elements contain policies to minimize development in areas with steep slopes or erosive soils, minimize soil compaction, protect soils from harmful wastes, and ensure implementation of feasible measures to mitigate health and safety risks. For development in areas with moderate or high slope instability, applicants are required to submit background engineering studies and mitigation plans to address problems with slope instability. Additionally, all abandoned mine shafts and openings are required to be capped. The Natural, Cultural, and Scenic Resources Element also identifies policies to protect soil resources and preserve soils and lands that are most suitable for intensive agricultural production to encourage their continued use for agricultural purposes. Although soils in the project area may have characteristics of soils used for agricultural purposes, no agricultural uses occur in the project area or vicinity, thus policies relating to protection of high quality agricultural soils are not relevant to this project.

The **Grading Ordinance of the City of Placerville** (City Code Title 8-7-1; Ord. 1523, 4-11-1995) sets forth rules and regulations to control grading and construction activities and requires permits and other approvals prior to initiating large-scale activities. The ordinance is designed to protect the public, avoid pollution of watercourses, and ensure

consistency with the City's General Plan, zoning ordinance, California Building Code, and the IBC. The ordinance was amended in early 2008 to reflect revisions to the California Building Code that became effective in January 2008. The project's mass grading will require compliance with this ordinance and require issuance of a grading permit from the City.

### **3.6.2 Environmental Setting**

#### **Topography**

The project area and vicinity generally slope downgrade from the southeast to the northwest. The elevation range of the project area is between approximately 2,000 feet msl along the northwestern border to 2,400 feet msl on the southern border. The topography undulates toward the northwestern border with several small canyons with drainages conveying surface water to the northwest.

The project area's sloping topography indicate the potential for mass movements, such as landslides or mudflows, which can lead to damage to buildings or injury to the public. Slope-related hazards, however, have not been considered a problem in the Placerville area (City of Placerville 1989a). Soils in the area tend to be composed of very stable material, and City policies require proper excavation and fill of areas with excessive slopes to ensure minimal impacts to buildings and people (see Regulatory Setting).

#### **Geologic Conditions**

The project area is generally underlain by undifferentiated metasedimentary rocks (slate and sandstone) and volcanoclastic rocks (volcanic and stream deposits) (Youngdahl 2005; EIR Appendix D). The older metasedimentary rocks contain mudstone and sandstone that has been fractured and weathered in some areas. The younger volcanoclastic rocks overlay the metasedimentary rocks and contain a cemented, massive sandy matrix (volcanic ash) mixed with gravel and cobbles and occasionally river sand, which may contain gold.

Some of the bedrock underlying the surface soils contains talc schist bedrock, which has potential to contain naturally occurring asbestos (NOA). Two test pits in the central portion of the project area contained talc schist bedrock, but no fibrous or asbestiform materials were encountered (Youngdahl 2005). Where NOA is found, disturbance could cause cleavage of asbestos-bearing rocks, resulting in the release of asbestos fibers. Prolonged inhalation of asbestos fibers has been found to cause scarring of the lungs, lung cancer, and mesothelioma (see Section 3.11 Air Quality for further discussion of health concerns).

Subsidence due to groundwater withdrawal is an extensive problem in California. This type of subsidence often occurs in valleys underlain by alluvium. Subsidence, however, has not been a problem in the Placerville area because the bedrock material is firm and not alluvial in nature (City of Placerville 1989a). The underlying bedrock in the project area indicates that subsidence is not anticipated to be a problem.



## **Soil Conditions**

The project area contains seven soil types (Table 3.6-1) according to the soil survey for the El Dorado area (Natural Resources Conservation Service [NRCS] 2007). These soils are primarily loams with varying amounts of sand, silt, and clay. None of the soils is considered highly susceptible to wind erosion, although they can occur on fairly steep slopes (up to 50 percent slopes), which can result in erosion during construction or grading activities. Two of the project area soil types (Cohasset cobbly loam and Josephine-Mariposa gravelly loams) are considered “choice agricultural soils” according to the General Plan (City of Placerville 1989a). These soils, however, are not used for agricultural purposes in the project area. The project area would not be considered valuable agricultural land, and impacts to agricultural resources would not occur.

## **Mineral Resources**

The City of Placerville is in a region that was mined for gold during the mid- to late-1800s and early 1900s. Evidence of past mining activities include mine tunnels and pits, tailing piles (cobble and gravel) along streams, and surface depressions. Hydraulic and drift mining occurred extensively in the area from 1850 through the 1870s (Youngdahl 2005). Lode mining began in the 1850s and extended into the early 1900s. Four placer gold mines are located in the vicinity of the project area, but no mining features have been recorded in the project area, although portions of the project area are included in the Linden placer gold claim. Based on the lack of documentation, it is likely that exploratory mining in the project area resulted in little to no yield.

Evidence of past mining, which was likely exploratory, includes two tunnels (or adits) and eight depressions or rock piles in the southeastern portion of the project area (Youngdahl 2005). The depressions may be the result of tunnels caving in or shallow exploratory pits.

**Table 3.6-1. Soil Types in the Project Area**

Soil Name	Slopes, %	Typical Soil Layers	Drainage Capability	Erosion Potential <sup>1</sup>
Cohasset cobbly loam (CoE)	15–50	Cobbly loam to 14 inches, cobbly clay loam to 46 inches	Well drained	Group 6
McCarthy cobbly loam (MhE)	9–50	Cobbly loam to 10 inches; very cobbly loam to 38 inches	Well drained	Group 6
Mariposa very rocky silt loam (MbE)	3–50	Gravelly silt loam to 26 inches	Well drained	Group 6
Josephine silt loam (JtE)	30–50	Silt loam to 14 inches, silty clay loam to 33 inches	Well drained	Group 5
Josephine very rocky silt loam (JuE)	9–50	Silt loam to 14 inches, silty clay loam to 33 inches	Well drained	Group 5
Josephine-Mariposa gravelly loams (JvD)	15–30	Gravelly loam to 14 inches, clay loam to 50 inches	Well drained	Group 6
Sites very rocky loam (SrE)	15–50	Loam to 14 inches, clay loam to 21 inches	Well drained	Group 6

Source: NRCS 2007.

<sup>1</sup>Erosion potential is based on a wind erodibility group ranking. Soils are ranked in groups from 1 to 8, with 8 being the least susceptible to wind erosion.

### 3.6.3 Impact Analysis

#### Methodology

The impact analysis is based on site-specific geologic and soils conditions from the preliminary geotechnical engineering study for the project (Youngdahl 2005), the soil survey for the El Dorado Area (NRCS 2007), and background information in the City of Placerville General Plan (1989). The project was analyzed in terms of its consistency with City of Placerville General Plan policies and ordinances and the potential for geologic, soils, or mining-related hazards to affect people and property in the project area.

#### Levels of Significance

Adverse impacts related to geology and soils would be considered significant if the proposed project would expose people or structures to impacts involving:

- Landslides or mudflows
- Erosion, changes in topography, or unstable soil conditions from excavation, grading, or fill
- Subsidence of the land
- Potential health hazards from mining features

#### Impacts and Mitigation Measures

**Impact GS-1: Project construction would expose soils to wind and water erosion because of the substantial amount of grading activities on steep slopes.**

The project involves large-scale cut and fill activities that would result in terracing the existing topography to provide building pads and minimal slopes for infrastructure and homes. Grading activities would occur on approximately 58 acres within the project area (residences, clubhouse, and roads), with additional grading occurring where utility pipelines and facilities are needed outside of the residential area. Preliminary grading plans indicate the need to cut and fill approximately 1.2 million cubic yards of soil and other material.

The primary access road (Canyon View Drive) would be graded to provide a gradual change in elevation from approximately 2,115 feet above msl at Broadway to 2,180 feet above msl at the boundary of the residences in the project area, based on preliminary grading plans for the road. Grading and filling the project area would result in gentle topographic slopes to facilitate development, with steep slopes retained along the edges of development where open space is preserved.

The substantial grading and filling of soils would create large stockpiles of soil in the project area over several years of development and would result in substantial modifications to portions of the project area's topography, exposing steep slopes to wind and water erosion. Although the project area soils are not inherently highly erodible, the extensive amount of cut and fill activities, and the extent of steep slopes in the project area, would expose substantial soil volumes to the forces of wind and water, causing a significant erosion impact.

Also, the extent of steep slopes located adjacent to homes and along roadways would create potential problems with slope instability, which could cause damage to buildings and roads and possibly injure the public. To minimize potential for erosion along the slopes around the development, the project would include construction of retaining walls around yard lines and along roads, where necessary.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure GS-1: Implement best management practices during grading activities to control soil erosion.*

The City will require the applicant to identify best management practices (BMPs) to control erosion during grading activities. Preparation of an erosion control plan will be required as part of the grading permit application if grading will occur after October 15 of any year, in compliance with the Grading Ordinance. These measures should be clearly depicted on project grading plans and approved by the City prior to issuance of the grading permit. Typical BMPs are described in Section 3.5 Hydrology and Water Quality (Mitigation Measure HWQ-1) and would also be required as part of the NPDES General Permit.

**Level of Significance After Mitigation: Less than significant because standard best management practices would ensure minimal effects from soil erosion.**

**Impact GS-2: Development on or near existing mining features could result in damages to buildings and safety concerns for the public.**

The project would include development of residences in an area with known mining tunnels and other mining features (depressions associated with possible mining).

Unknown mining features may also be discovered during grading activities. These mining features could create problems during construction if the features collapse. Additionally, if the features are not closed prior to development, future residents may explore the tunnels and be exposed to health and safety concerns associated with potential collapses, unstable ground, or exposure to hazardous remnants of past mining operations. Because the mining features in the project area would expose buildings and people to potential hazards and safety concerns, impacts would be significant.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure GS-2: Close and stabilize mining features during grading activities.*

The City will require the applicant to identify adequate measures to close and stabilize all mining features in the project area based on recommendations from the geotechnical study (Youngdahl 2005) and verified by a qualified engineer when the grading plans are finalized. These measures will be clearly depicted on project grading plans and be approved by the City prior to issuance of grading permits. All known features and any features discovered during grading activities will be sealed, filled, and/or capped depending on the feature type. Stable or competent adits should be closed by placement of a concrete bulkhead at the entrance. Unstable or collapsed adits should be injected with a cement grout mixture under high pressure to consolidate any loose materials or fill existing voids. Sloping tunnels should be capped with a concrete slurry plug. Vertical shafts should be capped with a structural concrete bridge plug installed in firm materials. Shallow features, exploratory pits, or trenches should be excavated to their full depth and backfilled with engineered fill.

**Level of Significance After Mitigation: Less than significant because proper closure of mining features would ensure buildings and the public are protected from associated hazards.**

**Significant and Unavoidable Impacts**

None.

**3.7 BIOLOGICAL RESOURCES**

This section evaluates biological resource impacts resulting from project construction and operation and includes a discussion of the mitigation measures necessary to reduce impacts to a less-than-significant level where possible. The information contained in this analysis is based upon the Biological Resources Assessment (BRA; Appendix E) and Preliminary Waters of the U.S. Delineation (Appendix F) prepared by SWCA Environmental Consultants and previous biological studies prepared by others.

**3.7.1 Regulatory Setting**

**Federal**

The **Endangered Species Act** (ESA) (16 USC 1531 et seq.) protects threatened and endangered plants and animals and their critical habitat. Procedures for addressing impacts to federally listed species follow two principal pathways; both require consultation with the U.S. Fish and Wildlife Service (USFWS), which administers ESA

for all terrestrial species. The first pathway, Section 10(a) incidental take permit, applies when a private landowner's actions result in take of a listed species, but do not require a federal permit or approval. The second pathway, Section 7 consultation, applies to projects directly undertaken by a federal agency or private projects requiring a federal permit or approval, when these projects may adversely affect a listed species or modify critical habitat.

The **Migratory Bird Treaty Act** (MBTA) (16 USC 703 et seq.) implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in regulations or by permit. The State of California has incorporated protection of native birds, including birds of prey in Sections 3800, 3513, 3503, and 3503.5 of the California Fish and Game Code (FGC).

All raptors and their nests are protected from take or disturbance under the MBTA (1918) and California statute (FGC Sec. 3503.5). Golden eagles are afforded additional protection under the Bald and Golden Eagle Protection Act, amended in 1973 (16 USC 669 et seq.).

Section 404 of the **Clean Water Act** (33 USC 1344 et seq.) prohibits discharge of dredged or fill material into "waters of the United States" without a permit from USACE. The USACE and the EPA administer the Act. In addition to traditional navigable waters, the definition of waters of the U.S. includes wetland areas in or adjacent to jurisdictional waters "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 Code of Federal Regulations [CFR] 328.3 7b).

Projects with substantial impacts to waters of the U.S. may require an individual permit. Small-scale projects with minimal impacts may be authorized by nationwide permits, which have an expedited process compared to the individual permit process. Mitigation of wetland impacts is required as a condition of the Section 404 permit, and may include preservation, restoration, or enhancement within the project area and/or off-site restoration or enhancement. The characteristics of restored or enhanced wetlands must be equal to or better than those characteristics of affected wetlands to achieve no net loss of wetlands values.

## State

The **California Endangered Species Act** (CESA) (FGC 2050 et seq.) provides protection to California's endangered and threatened species. Section 2080 of the FGC prohibits taking of plants and animals listed under CESA. Section 2081 established an incidental take permit program for state-listed species. In addition, the Native Plant Protection Act of 1977 (FGC 1900 et seq.) gives the California Department of Fish and Game (CDFG) authority to designate State endangered, threatened, and rare plants and provides specific protection measures for designated populations.

The CDFG has also identified many "species of special concern" (CDFG 2006). Species with this status have limited distribution or the extent of their habitats has been reduced substantially, such that their populations may be threatened. While they do not have statutory protection, impacts to these species are typically considered in the California

Environmental Quality Act (CEQA) review process, requiring mitigation when appropriate.

**Fish and Game Code Sections 1601 to 1606** require that a Notification of Lake or Streambed Alteration be submitted to CDFG for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake” (FGC 1994). The CDFG reviews proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the CDFG and the applicant is the Lake or Streambed Alteration Agreement. Projects that require a Lake or Streambed Alteration Agreement may also require a permit from the USACE under Section 404 of the Clean Water Act.

**Fish and Game Code Section 1900** et seq., or Native Plant Protection Act, lists threatened, endangered, and rare plants as designated by the California Fish and Game Commission (FGC 1994).

**Fish and Game Code Sections 3500 to 5500** outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish (FGC 1994). Species that are fully protected by these sections may not be taken or possessed at any time. The CDFG cannot issue Sec. 2081 permits that would authorize incidental take of a fully protected species (FGC 1994). FGC requirements pertinent to the project for fully protected species include:

- Section 3503 (which prohibits taking, possession, or needless destruction of the nest or eggs of any bird);
- Section 3503.5 (which prohibits taking, possession, or destruction of any bird in the order Falconiformes or Strigiformes (birds of prey) or taking, possession, or destruction of the nest or eggs of any such bird); and
- Section 3513 (which prohibits taking or possession of any migratory non-game bird as designated in the MBTA).

## Local

The **City of Placerville General Plan Policy Document** (City of Placerville 2004) includes policies to protect riparian vegetation by setting buildings and improvements back from watercourses; discouraging vegetation clearance that would unnecessarily disturb riparian vegetation; and siting new developments in a manner that protects native trees, riparian vegetation, and other important natural resources.

The **Placerville City Code** includes a Woodland and Forest Conservation ordinance (Chapter 13 of Title 8) intended to preserve and enhance urban forest lands within the City. The ordinance regulates tree removal by establishing minimum canopy retention standards for residential subdivisions that are used as thresholds of significance under CEQA (Table 3.7-1). These standards identify the amount of canopy that should be retained during development. This amount is calculated by multiplying the appropriate rate by the percentage of existing canopy cover (i.e., for 50 percent existing cover, 0.80 x 50, or 40%, must be retained). The ordinance requires issuance of a Woodland Alteration Permit and preparation of a Woodland Alteration Plan before significantly altering any forest or woodland.

**Table 3.7-1. Tree Canopy Retention Standards**

Existing Base Line Canopy Cover	Percentage of Canopy to Be Retained
80–100 percent	0.60 × Existing baseline canopy
60–79 percent	0.70 × Existing baseline canopy
40–59 percent	0.80 × Existing baseline canopy
20–39 percent	0.85 × Existing baseline canopy
19 percent or less	0.90 × Existing baseline canopy

Source: Placerville City Code.

### 3.7.2 Environmental Setting

#### Regional Setting

The project area is located within the northern Sierra Nevada foothills region of California. This region lies between the Great Central Valley and the high Sierra Nevada and lies within a climate zone typically characterized by hot summers and moderately cold winters (Hickman 1993). The region is defined by canyons and valleys formed by the American River and its tributaries and is considered a transitional area of the Sierra Nevada foothills with a combination of lower elevation habitats, such as oak woodland, bordered by higher elevation pine forests. The mosaic of habitats represented within this region is largely dependent on topography and slope direction.

Uses in the vicinity of the project area include the Eldorado National Forest, development within the City of Placerville, and rural areas of El Dorado County. The west boundary of the Eldorado National Forest is located approximately 4.5 miles northeast and 8 miles east of the project area. Suburban and rural residential development in Placerville surrounds the project area. Rural residential development and forested areas are located to the northeast between the project area and the Eldorado National Forest. A small residential park, Lumsden Park, is located at the northwestern border of the project area. The park has landscaped grounds and a small reservoir that provides recreational fishing. The Placerville general aviation airport is located approximately 1,200 feet to the southeast.

#### Project Area Setting

The project area is located on the northwest slope of Texas Hill and is within the Hangtown Creek watershed. The project area is generally characterized by oak woodlands and pine forests with rural residences. Several drainages and associated wetlands occur throughout the project area. Brief descriptions of the habitat types and associated plant and wildlife species that occur, or have potential to occur, in the project area are provided below.

#### Habitat Types

The project area is dominated by black oak (*Quercus keloggii*) forests and woodlands intermixed with foothill pine (*Pinus sabiniana*) and ponderosa pine (*Pinus ponderosa*). These habitats are generally undisturbed with the exception of dirt roads, residences

and their associated disturbed areas, and past mining activities. Several drainages bisect these habitat types, and freshwater emergent wetlands are present in the black oak forest in the southeastern portion of the project area. Five residences occur in the central portion of the project area. Brief descriptions of each habitat type are provided below; detailed descriptions are provided in the BRA (Appendix E). Table 3.7-2 provides an overview of the acreage of each habitat type in the project area. Figure 3.7-1 provides a map of habitat types in the project area.

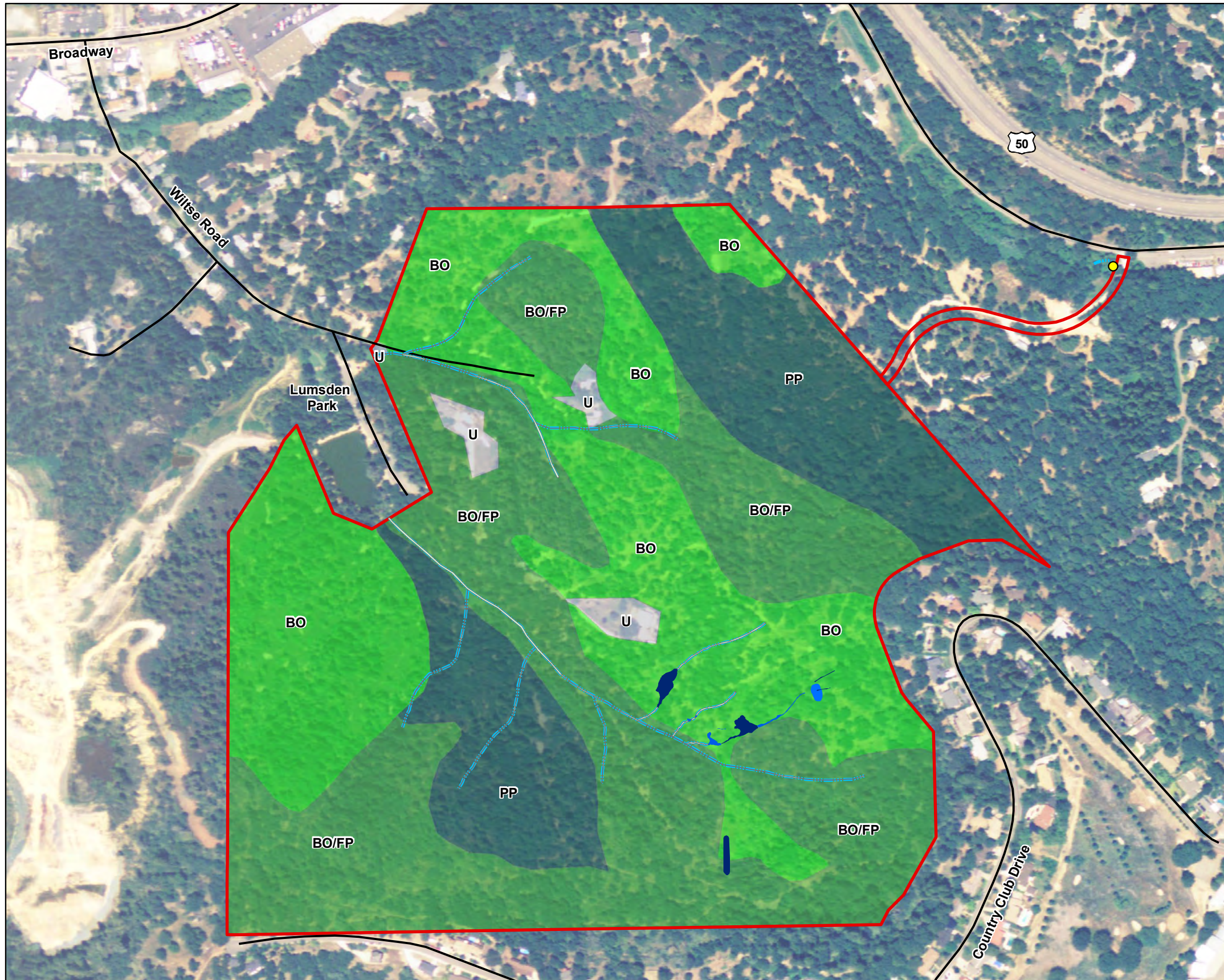
**Table 3.7-2. Habitat Types in the Project Area**

<b>Habitat Type</b>	<b>Acreage</b>	<b>Percent</b>
Montane Hardwood (Black Oak Forest and Woodland)	47.3	36
Black Oak–Foothill Pine	56.4	41
Montane Hardwood-Conifer Forest (Ponderosa Pine–Black Oak)	27.3	21
Freshwater Emergent Wetland (Seeps and Springs)	0.34 <sup>1</sup>	—
Man-made Freshwater Pond (Broad-leaved Cattail)	0.04 <sup>1</sup>	—
Urban	2.2	2
Riverine (Intermittent/Ephemeral Stream)	0.41 <sup>1</sup>	—
<b>Total</b>	<b>133.2</b>	<b>100</b>

<sup>1</sup>Wetlands, ponds, and drainages occur in the other habitat types, and the acreage is included with the other acreages.

Source: SWCA 2007a.





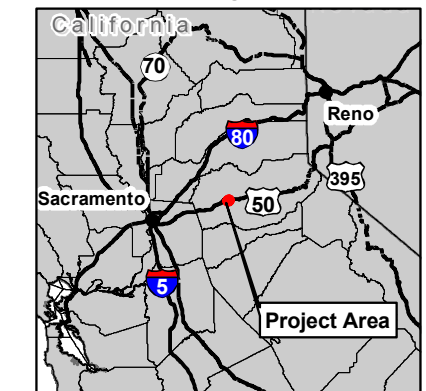
**Legend**

- Project Area
- Culvert

**Habitat Types**

- Man-made Freshwater Pond (broad-leaved cattail)
- Seasonal Wetland
- Seep/Spring
- Riverine (intermittent/ephemeral stream)
- BO: Montane Hardwood (Black Oak)
- BO/FP: Black Oak-Foothill Pine
- U: Urban
- PP: Montane Hardwood-Conifer Forest (Ponderosa Pine-Black Oak)

**Vicinity Map**



**Figure 3.7-1  
Habitat and Wetland Map**



**Montane Hardwood (Black Oak Forest and Woodland).** Much of the project area (47.3 acres) contains black oak forest and woodland, which is characterized by a black oak overstory (canopy cover) with a scattered understory of shrubs and herbaceous vegetation. Associated tree species include foothill pine, blue oak (*Quercus douglasii*), and interior live oak (*Quercus wislizenii*). Dominant shrubs in the understory include typical chaparral species, such as whiteleaf manzanita (*Arctostaphylos viscida*), buck brush (*Ceanothus cuneatus* var. *cuneatus*), and deer brush (*Ceanothus integerrimus*). The herbaceous layer is present in openings within the shrub and tree canopy layers. This habitat provides important nesting sites and foraging habitat for raptors including the Cooper's hawk (*Accipiter cooperii*) and California spotted owl (*Strix occidentalis occidentalis*). Downed logs and moist soils within this habitat type provide refugia and foraging areas for amphibians, reptiles, and small mammals. Northwestern pond turtle (*Emys marmorata marmorata*) may travel through this habitat and hibernate in the soils. Acorns provide a substantial food source for many bird species and small mammals. Larger trees may provide roosts for bats.

**Black Oak–Foothill Pine.** The dominant habitat type in the project area (56.4 acres) is black oak–foothill pine forest or woodland, which is characterized by the co-dominance of black oak and foothill pine in the overstory and contains a more open, savanna-like structure intergrading into more dense forested areas. Associated trees and understory vegetation are similar to the species present in the montane hardwood habitat type. The taller, denser habitat structure of this habitat type provides suitable nesting sites for a large number of bird species. Raptors may use taller pines, while other protected bird species are likely to nest in cavities, lower branches, and within the shrub layer. The California spotted owl may use mature trees for nesting and foraging. Downed trees and litter provide refugia and foraging habitat for amphibians, reptiles, and small mammals. Grassy open areas provide foraging habitat for rodents and the larger animals that prey on them. Northwestern pond turtle may travel through this habitat and hibernate in the soils. Larger trees may provide roosts for bats.

**Montane Hardwood-Conifer Forest (Ponderosa Pine–Black Oak).** The ponderosa pine–black oak forest is less dominant than the other two primary habitat types, encompassing approximately 27 acres in the project area. This habitat type is characterized by ponderosa pine and black oak in the overstory with a sparse understory. Associated trees include Douglas fir (*Pseudotsuga menziesii* var. *menziesii*), incense cedar (*Calocedrus decurrens*), and mountain dogwood (*Cornus nuttallii*). Scattered chaparral shrub species occur in the understory. This habitat may provide foraging and nesting areas for the Cooper's hawk, California spotted owl, other raptors, and migratory bird species. Downed trees and litter provide refugia and foraging habitat for amphibians, reptiles, and small mammals. Northwestern pond turtle may travel through this habitat and hibernate in the soils. Larger, mature trees may provide roosts for bats.

**Freshwater Emergent Wetland.** Several seeps, springs, and seasonal wetlands occur along drainages in the southeastern portion of the project area, encompassing approximately 0.34 acre within the mixed oak woodland habitats. Two perennial springs provide a water source for a small, man-made pond (see below), which leaks into a drainage that contains seasonal wetlands and a seep (North Fork Associates 2003). Other wetland areas are fed by slight groundwater discharge (seasonal wetlands and a seep) or a broken water line (seep along an intermittent drainage). These features are considered waters of the U.S., under the jurisdiction of the USACE, as discussed in the

Waters of the U.S. section below. Dominant vegetation within the wetlands includes common spikerush (*Eleocharis macrostachya*) and sedges (*Carex* sp.). These wetlands provide important foraging habitat, breeding substrate, and cover for a variety of birds and aquatic species including insects, amphibians, and reptiles, and may provide travel routes for many species, including the northwestern pond turtle.

**Human-made Freshwater Pond.** A small (0.04 acre), human-made freshwater pond detains water from two perennial springs within the montane hardwood habitat. This pond is located along a seep in the eastern portion of the project area and has a gunnite berm with a dirt bottom (North Fork Associates 2003). It holds water year-round and supports emergent freshwater marsh vegetation dominated by broadleaf cattail (*Typha latifolia*). This pond may provide foraging habitat, breeding substrate, and cover for aquatic species, such as insects, amphibians, and reptiles, including northwestern pond turtles. It may also provide foraging habitat for bird species and nesting habitat for species that prefer to nest in cattails, such as red-winged blackbird (*Agelaius phoeniceus*) and song sparrow (*Melospiza melodia*).

**Urban.** Urban areas in the project area consist of five residences and associated outbuildings, landscaping, and disturbed areas, encompassing approximately 2.2 acres. This habitat type is limited to the residential areas within the project area and the adjacent developed and disturbed areas along Canyon View Drive. This habitat is characterized by sparse vegetative cover dominated by nonnative grasses and forbs. Urban habitats often support domestic or common wildlife species.

**Riverine.** Riverine habitat is associated with the ephemeral and intermittent drainages in the project area, encompassing approximately 0.41 acre within the black oak, foothill pine, and ponderosa pine forests and woodlands. An intermittent drainage conveys flows from a broken pipe and supports scattered riparian trees and shrubs, including Himalayan blackberry (*Rubus discolor*), an invasive species, poison-oak (*Toxicodendron diversilobum*), and scattered willows (*Salix* spp.) and cottonwoods (*Populus fremontii*). Several ephemeral drainages convey flows from runoff and the intermittent drainage into off-site water features, including the reservoir at Lumsden Park and eventually Hangtown Creek. These drainages also support some riparian vegetation, such as poison oak and Himalayan blackberry, but tend to be dominated by upland vegetation associated with the surrounding forests and woodlands. The ephemeral and intermittent drainages may be considered waters of the U.S., as discussed below in the Waters of the U.S. section, and the riparian habitat may be subject to the CDFG's jurisdiction. This habitat may provide important foraging habitat, breeding substrate, and cover for aquatic species including insects, amphibians, and reptiles, and can provide travel routes for many of these species, including the northwestern pond turtle. This habitat may also provide important foraging and nesting habitat for bird species, including the yellow warbler (*Dendroica petechia*).

In addition to the drainages within the project area, an unnamed tributary to Hangtown Creek follows Broadway to the northeast of the project area and conveys flows via a culvert under the existing dirt road (proposed location for Canyon View Drive). This tributary supports riparian vegetation along its upper banks, including Himalayan blackberry, poison-oak, willows, cottonwoods, and white alder (*Alnus rhombifolia*).

Canopy Cover

The project area contains approximately 92 acres, or 69 percent, tree canopy cover, as defined by the City’s Woodland and Forest Conservation ordinance. The canopy cover includes various species of oaks (*Quercus* spp.) and pine (*Pinus* spp.) as well as others noted in the habitat descriptions above.

Wildlife Corridors

The project area does not serve as a wildlife corridor because it does not connect two or more larger areas of habitat that would otherwise be isolated from one another. The drainages and forested habitats may provide travel corridors for various wildlife species within the project area, but the surrounding uses and man-made alterations to downstream drainages do not provide sufficient connectivity to constitute a wildlife corridor.

Waters of the U.S.

Waters of the U.S. in the project area consist of several drainages, wetlands, and a small pond (Table 3.7-3). These features are described above under the freshwater emergent wetland, man-made freshwater pond, and riverine habitat types. Most of these waters have been verified by the USACE as being jurisdictional (0.75 acre; North Fork and Associates 2003); however, two of the ephemeral drainages (0.04 acre) are pending formal verification and are considered potential waters of the U.S. until verified by the USACE (Appendix F). The drainages in the project area convey runoff, spring flow, and flow from a broken pipe to Hangtown Creek, which drains into Weber Creek and ultimately the American River to the northwest of Placerville. Because of these drainages’ connectivity to the American River, a water of the U.S., they would also likely be considered waters of the U.S.

**Table 3.7-3. Potential Waters of the U.S.**

Habitat Type	Acreage
<b>Wetlands</b>	
Seep/Spring	0.29
Seasonal Wetland	0.05
<b>Other Waters</b>	
Pond	0.04
Intermittent Drainage	0.04
Ephemeral Drainage	0.37
<b>Total</b>	<b>0.79</b>

Source: North Fork Associates 2003; SWCA 2007b.

Special Status Species

The project area provides suitable habitat for several special status plant and wildlife species, including five special status plants and nine special status wildlife. Habitat and site conditions were also reviewed for other special status species, but these species

were determined to be absent or not likely to occur and are not further discussed in the EIR (see Appendix E for a detailed list of special status species and their occurrence potential).

### *Special Status Plants*

The five special status plant species that may occur in the project area include Nissenan manzanita (*Arctostaphylos nissenana*), Pleasant Valley mariposa lily (*Calochortus clavatus* var. *avius*), Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeeeae*), Parry's horkelia (*Horkelia parryi*), and oval-leaved viburnum (*Viburnum ellipticum*). None of these plants is federally or state listed, but they are considered rare in California according to the California Native Plant Society. None of these species was detected during reconnaissance-level field surveys, but the presence of suitable habitat indicates that they may occur.

Nissenan manzanita is found in chaparral habitats and may occur in the understory of black oak forests and woodlands, black oak-foothill pine forests or woodlands, and ponderosa pine-black oak forests associated with chaparral shrub species in the project area. The Pleasant Valley mariposa lily occurs in lower montane coniferous forests and may occur within the foothill pine and ponderosa pine habitats in the project area. Brandegee's clarkia and Parry's horkelia occur in chaparral and cismontane woodlands and may occur in the understory of the forests and woodlands in the project area. Oval-leaved viburnum occurs in chaparral, cismontane woodlands, and lower montane coniferous forests and may occur in the understory of the forests and woodlands in the project area.

### *Special Status Wildlife*

Two federally listed wildlife species, seven California species of special concern, and two other special status species tracked by the CDFG, as well as various nesting birds, may occur in the project area. The valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) and California red-legged frog (*Rana aurora draytonii*) are listed as threatened species under the ESA; red-legged frog is also a California species of special concern. Other species of special concern include northwestern pond turtle, Cooper's hawk, yellow warbler, California spotted owl, pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and silver-haired bat (*Lasionycteris noctivagans*). The other special status species include long-eared myotis (*Myotis evotis*) and Yuma myotis (*Myotis yumanensis*). Brief descriptions of these species' habitat requirements are provided below.

**Valley Elderberry Longhorn Beetle.** The valley elderberry longhorn beetle is endemic to moist valley oak woodlands (mostly riparian habitat) along streams and rivers where its hostplant, elderberry shrubs (*Sambucus* spp.), grow (USFWS 1984). Evidence of the beetles using the shrubs includes small, rounded emergence holes approximately one centimeter (0.4 inch) in diameter on trunks or stems (typically one inch or greater in diameter). Although limited on-site, riparian habitat along the ephemeral and intermittent drainages in and adjacent to the project area may provide suitable habitat for elderberry shrubs. Field surveys performed in 2003 by North Fork and Associates and in 2007 by SWCA Environmental Consultants to support BRAs and Waters of the U.S.

determinations did not identify any elderberry shrubs in the project area; however, these surveys were not protocol-level surveys.

**California Red-legged Frog.** The California red-legged frog occurs primarily in aquatic and riparian habitats, but also utilizes adjacent upland habitats, generally within 330 feet (100 meters), as travel corridors (USFWS 2005). Breeding habitat consists of natural and man-made ponds and other permanent or semi-permanent aquatic habitats that typically support dense emergent vegetation (i.e., cattails). Development within the City of Placerville separates the project area from recent occurrences of red-legged frog along Weber Creek; however, several stock ponds in developed areas surrounding the project area could provide suitable breeding (aquatic) habitat that may be used by the red-legged frog (Wildlife Research Associates [WRA] 2004a). These stock ponds are also isolated from the project area due to a lack of direct connectivity via drainages or suitable travel corridors. Hangtown Creek has been evaluated downstream of the project area and does not provide suitable habitat for red-legged frogs (Painter, personal communication, 2008). Additionally, the aquatic habitats (man-made pond and drainages with no pools) in the project area provide low quality breeding habitat for the frog (WRA 2004a). Based on the low quality of aquatic habitats and the isolation of the project area from other known occurrences and suitable breeding habitat, the California red-legged frog has a low potential to occur in the project area.

**Northwestern Pond Turtle.** The northwestern pond turtle uses both aquatic and terrestrial habitats in riparian areas, and females carrying eggs have been reported up to a mile away from water. This species was detected in the pond at Lumsden Park during previous surveys in 2004 (WRA 2004a). It may use the small man-made pond, wetlands, drainages, and adjacent upland habitats in the project area. The upland habitats adjacent to the drainages and wetlands may be used for travel, foraging, nesting, and hibernation/aestivation during inactive periods.

**Special Status Birds.** The three bird species of special concern may utilize the project area for nesting and foraging. Cooper's hawk was observed in the project area during field surveys in 2007 and may nest and forage in woodland habitats throughout the project area. The yellow warbler may nest in trees associated with the riverine and pond habitats in and adjacent to the project area. The project area is located on the western geographic limit and lower elevation limit of the known range for California spotted owl. Although the isolation of the project area and the presence of rural residences decrease the quality of habitats for this species, it is known to occur within five miles, and the oak and mixed oak-pine woodlands with larger diameter trees provide a relatively large area of suitable habitat within the project area.

**Other Nesting Raptors.** Other protected raptor species may forage and nest in the project area, including the red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), barn owl (*Tyto alba*), western screech owl (*Otus kennicottii*), northern pygmy owl (*Glaucidium californicum*), and great horned owl (*Bubo virginianus*). The American kestrel, western screech owl, and northern pygmy owl would most likely use cavities in trees or utility poles. The other hawks and the great horned owl may use platform nests in large trees. The barn owl may nest in ornamental trees and outbuildings.

**Migratory and Resident Nesting Birds.** Protected migratory and resident bird species may forage and nest within the project area. Migratory and resident birds forage and

nest in all habitats in the project area; highest concentrations of birds are found in the less disturbed woodlands and adjacent to drainages and wetlands.

**Special Status Bats.** The entire project area provides suitable foraging habitat for the pallid bat, Townsend's big-eared bat, silver-haired bat, long-eared myotis, and Yuma myotis; however, these species are likely to occur in greater numbers around water sources, such as the human-made pond, the off-site reservoir at Lumsden Park, and the intermittent drainage. In addition, several structures and the numerous large trees may provide hibernacula (winter roost sites), day roosts, nocturnal roosts, or nursery areas for bats (WRA 2004b). The mine tunnels in the project area are not accessible to bats and do not likely provide roosting habitat.

### 3.7.3 Impact Analysis

#### Methodology

The environmental setting is based on the BRA prepared by SWCA and prior studies prepared by North Fork and Associates (2003) and WRA (2004a and 2004b) (Appendix E). Specific survey methods are provided in the BRA and its appendices. The special status species assessment is based on a review of resource agency species lists, a taxa-specific literature review, a California Natural Diversity Data Base (CNDDB) query, and a reconnaissance-level field survey. The special status species considered for this project area are those having a reasonable probability of occurring on-site under existing conditions.

The impact analysis focused on those special status species that may occur in the project area and may be affected by project activities. The loss of habitat was quantified using the habitat maps, and the effects of this loss were determined based on the species that may occur in the project area.

#### Levels of Significance

Adverse impacts to biological resources would be considered significant if the proposed project would:

- 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.
- Substantially reduce the number or restrict the range of an endangered, rare, or threatened species.
- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFG or USFWS.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including vernal pool, seasonal wetlands



and ponds) through direct removal, filling, hydrological interruption, or other means.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Remove woodland or forest canopy in excess of Placerville's minimum canopy retention standards.

## **Impacts and Mitigation Measures**

### **Impact BR-1: Development of the project area would result in the loss of 70 acres of mixed oak forests and woodlands and a minor amount of riparian habitat.**

The project area contains approximately 130 acres of mixed oak forest and woodland habitats. Although these habitat types are common throughout this region and are not considered sensitive habitats, they provide foraging, nesting, and roosting habitat for a variety of wildlife species, including several special status species, and provide suitable habitat for several special status plant species. Specific impacts to special status species are discussed below under Impacts BR-4 to BR-9.

Development of the project area would result in the loss of 25 acres of black oak forests and woodlands, 32 acres of black oak-foothill pine forests, and 12 acres of ponderosa pine-black oak forests (Table 3.7-4; Figure 3.7-1). As part of the project, 60 acres (46 percent) of these habitats would be preserved as open space and retained for wildlife use. Additionally, the development would remove less than 1 acre of riparian habitat within the subdivision and may affect a small amount of riparian habitat along the proposed Canyon View Drive. Impacts to biological resources from off-site utility pipelines are not anticipated because the pipelines would follow existing roads.

The open space areas would protect travel corridors in the project area and allow wildlife to travel between the developed areas to access other habitats in the project area. However, some wildlife would be displaced and would relocate to suitable habitat in the project vicinity, likely to the northeast and east where the Eldorado National Forest provides a vast amount of similar habitat. Because of the lack of suitable habitat in the immediate vicinity as a result of surrounding development, wildlife would not be expected to relocate to more disturbed areas, and wildlife displacement would have a minimal effect on existing developed areas and residents.

The project would preserve almost half of the forest and woodland habitats in the project area and would affect a minor amount of riparian habitat; therefore, impacts to habitats would be less than significant.

**Level of Significance Before Mitigation: Less than significant because the project would preserve almost half of the forest and woodland habitats in the project area and would only affect a minor amount of riparian habitat.**

**Table 3.7-4. Project Impacts by Habitat Type in the Project Area**

Habitat Type	Total Acreage	Impact Area	Percent Habitat Preserved
Montane Hardwood	47.3	25.0	47
Black Oak-Foothill Pine	56.4	32.3	43
Montane Hardwood-Conifer Forest	27.3	11.9	56
Freshwater Emergent Wetland	0.34 <sup>1</sup>	0.02 <sup>1</sup>	94
Man-made Freshwater Pond	0.04 <sup>1</sup>	0.0	100
Urban	2.2	1.4	36
Riverine	0.41 <sup>1</sup>	0.09 <sup>1</sup>	78
<b>Total</b>	<b>133.2</b>	<b>70.6</b>	<b>47</b>

<sup>1</sup>Wetlands, pond, and drainages are included in the total acreage for other habitat types.

**Impact BR-2: Development of the project area would result in the loss of 47 acres, or 51 percent, of tree canopy cover, but sufficient tree canopy cover would be retained to comply with the City ordinance (49 percent of the existing 69 percent canopy cover).**

The project area contains approximately 69 percent tree canopy cover (92 acres; Figure 3.7-2). Development of the project would remove approximately 51 percent (47 acres) of the existing tree canopy, preserving 49 percent as open space. According to the City's Woodland and Forest Conservation ordinance, 48.3 percent of the existing canopy cover (69 percent times 0.7 equals 48.3 percent, per Table 3.7-1) should be retained to ensure a minimal impact on the City's urban forests. In addition, some individual trees may be retained on subdivision lots. Based on the percent of tree canopy being preserved by the project, the loss of 51 percent of tree canopy cover would be a less-than-significant impact.

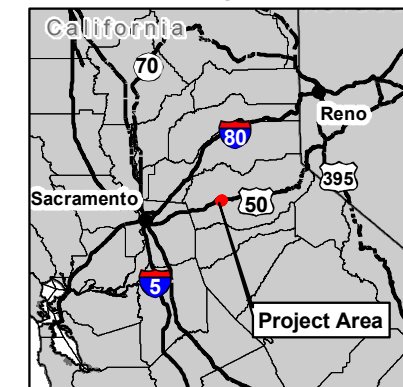
**Level of Significance Before Mitigation: Less than significant because the project would preserve a sufficient percentage of tree canopy cover to comply with the Woodland and Forest Conservation ordinance.**



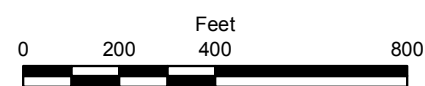
**Legend**

- Project Area
- Preserved Tree Canopy (45 ac, 49%)
- Impacted Tree Canopy (47 ac, 51%)

**Vicinity Map**



**Figure 3.7-2  
Tree Canopy Map**



1:4,800

Notes:  
Digitized from aerial and field survey  
Aerial Source: California Spatial Information  
Library (CASIL), 2005



**Impact BR-3: Development of the project area would result in direct impacts to 0.1 acre of potential waters of the U.S.**

The project area contains several ephemeral drainages, an intermittent drainage, and wetlands that potentially fall under the jurisdiction of the USACE and the DFG; these features are also considered sensitive habitats because of their state and federal protections and the important aquatic functions and values the habitats provide. The project would result in direct impacts to approximately 0.09 acre of ephemeral drainages, less than 0.001 acre of an intermittent drainage, and 0.016 acre of a seep, totaling approximately 0.1 acre of impacts. The ephemeral drainages would be affected by construction of the two proposed detention basins and several road and trail crossings associated with the development. One trail crossing would affect the intermittent drainage. A seep in the extreme southern portion of the development would be affected by the proposed residential uses. Most of the wetlands and drainages would be preserved as part of the open space area, but they may be indirectly affected by urban and construction pollutants in surface runoff (see Section 3.5 Hydrology and Water Quality). Direct impacts to jurisdictional waters could result in a net loss of wetlands and a loss of the aquatic functions and values provided by the wetlands and drainages, which would be a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure BR-3a: Design roads and trails to minimize direct impacts to drainages and wetlands.*

The City will require the applicant to design roads and trails to minimize direct impacts to drainages. Culverts, bridges, or a similar structure should be designed to cross drainages perpendicular to the drainage to minimize the extent of the crossing and should not impede flows through the drainage, including major storm events that may convey large volumes of runoff. Specific designs for roads and trails should be identified on grading plans and will be approved by the City prior to issuance of grading permits.

*Mitigation Measure BR-3b: Comply with terms of a Clean Water Act (Section 404) permit for direct impacts to waters of the U.S. and implement a mitigation plan for permanent impacts.*

The City will require the applicant to obtain a Section 404 permit from the USACE prior to any construction activities that would affect waters of the U.S. As part of the permit application process, the applicant should submit the Preliminary Waters of the U.S. Delineation prepared by SWCA Environmental Consultants for the additional 5-acre parcel and proposed Canyon View Drive alignment to the USACE for formal verification. Actual direct impacts to all waters of the U.S. should be calculated based on the verified delineation and specific grading plans. Based on the estimate of direct impacts to potential waters of the U.S. in the project area, the project would likely qualify for coverage under a nationwide permit, either nationwide permit 14 (for linear transportation projects) or nationwide permit 29 (for residential projects), depending on the purpose of the impacts. These permits allow up to 0.5-acre of temporary and permanent impacts to non-tidal waters of the U.S.

Conditions of the permit will require the applicant to implement measures for temporary impacts to maintain normal downstream flows and minimize flooding to the maximum

extent practicable. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows, and they must be removed in their entirety following construction. All temporarily affected areas must be returned to pre-construction elevations and revegetated, as appropriate.

Permanent impacts to waters of the U.S. will require compensatory mitigation to ensure no net loss of aquatic functions or values. A mitigation plan should be prepared to identify the specific details of the mitigation, which would include replacing affected waters at a minimum one to one ratio, describing the required characteristics of the replaced waters (same functions and values as the affected waters, as described in the Environmental Setting), identifying an appropriate on-site or off-site location to replace the affected waters, and providing monitoring and reporting requirements. The mitigation plan will be submitted to the USACE for approval prior to issuance of the permit. Alternatively, the applicant may purchase mitigation credits at a USACE-approved mitigation bank in the same watershed as the project (note the availability of an existing or future mitigation bank may not be guaranteed at the time of the permit application).

*Mitigation Measure BR-3c: Comply with terms of a Streambed Alteration Agreement and implement best management practices during construction.*

The City will require the applicant to notify the CDFG of any activities that could adversely affect fish and wildlife resources associated with construction activities in drainages on-site or activities that adversely affect downstream drainages (i.e., Hangtown Creek or Lumsden Pond). A notification package for a Streambed Alteration Agreement should be submitted to CDFG at the time a 404 permit application is submitted. The CDFG will determine if the project requires a Streambed Alteration Agreement and will issue a draft agreement to the applicant, if necessary. The applicant will be required to comply with terms of the agreement and implement measures to avoid, minimize, or compensate for impacts to drainages and wetlands that could adversely affect fish and wildlife. These measures may include best management practices for erosion control (see Section 3.5 Hydrology and Water Quality), compensatory mitigation for impacts to waters of the U.S. (Mitigation Measure BR-3b), and minimization of activities during the wet season.

**Level of Significance After Mitigation: Less than significant because the mitigation measures would ensure minimal impacts to waters of the U.S. and no net loss of wetland functions or values.**

**Impact BR-4: Development of the project area could result in the loss of special status plants.**

Five special status plant species (Nissenan manzanita, Pleasant Valley mariposa lily, Brandegees clarkia, Parry's horkelia, and oval-leaved viburnum) have the potential to occur within forested habitats throughout the project area. Construction activities could result in direct impacts to these species through the removal of individuals, local populations, and habitat that supports these species. Indirect impacts may include changes in important habitat elements, including hydrologic regimes and microclimate characteristics, resulting from construction and future increased levels of human disturbances associated with the project. Direct and indirect impacts to these special status plant species could adversely affect their regional populations (a substantial adverse effect) and result in significant impacts.

**Level of Significance Before Mitigation: Significant**

*Mitigation Measure BR-4a: Avoid direct take of special status plant species during construction activities.*

The City will require the applicant to conduct focused surveys for the five special status plant species (Nissenan manzanita, Pleasant Valley mariposa lily, Brandegees' clarkia, Parry's horkelia, and oval-leaved viburnum) with potential to occur in the project area and implement measures during construction to avoid and minimize impacts to individuals and on-site populations. The focused surveys will be required prior to the start of construction activities and should be conducted by a qualified botanist during the appropriate blooming period for each species (generally February to July) in accordance with CDFG's *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Plant Communities* (CDFG 2000). The surveys should be conducted in the entire project area, including those areas that would be affected by construction activities as well as the preserved, open space areas, to assess potential direct impacts and determine if a local population exists on-site that could be preserved and used for on-site mitigation. If the results of the survey determine that no special status plant species exist within the project area, then no further measures are necessary. However, if any of the special status plant species are identified within the project area, the locations of individuals or populations should be properly recorded. Individuals or populations within the area affected by the development should be counted and assessed for potential to relocate individuals. Individuals within the open space areas (those to be avoided) should be flagged or otherwise marked to identify avoidance areas during construction.

*Mitigation Measure BR-4b: Implement a restoration plan for the loss of special status plants.*

If any special status plant species would be directly affected by construction activities, the City will require the applicant to prepare and implement a restoration plan to compensate for take of the plants. The plan should discuss the ability to relocate individuals (transplant) to suitable habitat in the open space areas in the project area or a designated off-site area that would be preserved. If individuals cannot be transplanted, they should be replaced through artificial propagation or seed transfer of plant materials from the project area to a designated restoration site, either off-site or in the open space areas within the project area. The ratio of replacement to loss should exceed a 1:1 ratio (based on number of individuals) for all species. Because most rare plants are restricted to specialized habitats, creating the exact environmental conditions that these plants require may not be possible. The restoration plan should also describe site selection criteria, propagation methods, irrigation, installation designs, maintenance procedures, monitoring guidelines, success criteria, and a project timeline. Permits for handling special status plant materials may be required from CDFG. The plan should provide adequate lead time to plan and carry out the restoration at the correct time of the year. The restoration plan should be submitted to the City and the CDFG for approval prior to implementation.

If transplanting or replacing plants is not determined to be feasible, the City will require the applicant to provide off-site mitigation by protecting suitable habitats that support populations of special status plants. This would be accomplished through the permanent protection of an existing off-site native population, the permanent protection of an off-site

introduced population, mitigation banking, or a combination thereof. The ratio of acquisition to loss should exceed a 1:1 ratio (based on number of individuals) for all species. The size and location of the acquisition will vary depending upon the results of the focused survey and the type, condition, extent and rarity of the habitat and species and must be approved by the City or CDFG.

**Level of Significance after Mitigation: Less than significant because the mitigation measures would ensure avoidance, minimization, and compensation of impacts to special status plants.**

**Impact BR-5: Development of the project area could result in the loss of habitat for and potential take of the valley elderberry longhorn beetle.**

Elderberry shrubs may occur in the riparian habitat and adjacent uplands (moist oak woodlands) in and adjacent to the project area and could provide habitat for the valley elderberry longhorn beetle. Development of the project area would remove less than 1 acre of riparian habitat and could result in construction-related disturbances to riparian habitat near the proposed Canyon View Drive. Most of the suitable habitat would be preserved as part of the open space area; however, trail construction could also disturb or remove elderberry shrubs. Direct removal of any elderberry shrubs could result in take of individual longhorn beetles. Additionally, construction activities within about 100 feet of elderberry shrubs could disturb the beetle. Direct and indirect impacts to the valley elderberry longhorn beetle could substantially affect its population, and would be a significant impact.

**Level of Significance before Mitigation: Significant**

*Mitigation Measure BR-5a: Avoid removal of elderberry shrubs during construction activities.*

The City will require the applicant to conduct a focused survey for elderberry shrubs and implement measures to avoid removal of shrubs during construction activities. Within two years prior to construction, a qualified biologist will conduct a focused survey of the project area and adjacent upland and riparian habitat (within about 100 feet). The biologist will look for elderberry shrubs with stems one inch or greater and look for evidence of beetle activity on the shrubs (emergence holes), in accordance with the Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999). Survey results should be submitted to the USFWS for review; the results will be valid for a period of two years. If impacts to the beetle are anticipated as a result of the surveys, the applicant should initiate Section 7 consultation as part of the Corps 404 permit process. USFWS should be consulted to identify specific measures to implement during construction and following construction, if appropriate. If no elderberry shrubs are identified in the project area, no further mitigation measures would be necessary.

If elderberry shrubs with any stems greater than one inch are identified in the project area or adjacent habitats, a 100-foot wide construction-free buffer zone will be required to ensure no adverse effects occur. The buffer zone will be fenced and flagged with signs every 50 feet identifying the area as a “no-disturbance” zone because it provides habitat for the valley elderberry longhorn beetle. If activities are required within the buffer zone, the USFWS must be consulted, and a minimum 20-foot setback from the dripline



of the elderberry shrub will be required. Disturbed areas within the buffer zone will be restored immediately following the construction activities.

Additionally, the applicant will provide special status species training to all work crews to inform them about applicable regulations surrounding the valley elderberry longhorn beetle's legal protections, identifying elderberry shrubs, and avoiding elderberry shrubs during construction.

*Mitigation Measure BR-5b: Transplant or replace elderberry shrubs that cannot be avoided and establish a conservation area.*

The City will require the applicant to transplant or replace any elderberry shrubs that cannot be avoided by construction activities. Transplanting procedures should be coordinated with the USFWS and should follow the Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999). A transplanting and replacement plan should be prepared and submitted to the City and USFWS for approval prior to implementation. The plan should describe the transplanting procedures and replacement plantings, describe the conservation area (size, long-term protection, weed control, fencing), and identify monitoring requirements. Transplanting should occur during the shrub's dormant period (November through mid-February), and a biological monitor will be required on-site during all transplanting efforts to ensure unauthorized take does not occur. The biologist will have the authority to stop activities if unauthorized take is anticipated, and the USFWS will be consulted. In addition to the transplanting, each elderberry stem measuring one inch or greater that is affected by the project and not transplanted will need to be replaced. Replacement ratios range from 1:1 to 8:1 (new plantings to affected stems), depending on the quality of the shrubs and habitat; the replacement ratio is up to the discretion of the USFWS. The transplanting and replacement plantings should occur at an appropriate conservation area designated by the USFWS. This area will be held in perpetuity and may be within the open space areas on-site or at an acceptable off-site location. The USFWS will need to approve the conservation area prior to any transplanting efforts.

**Level of Significance after Mitigation: Less than significant because avoidance measures during construction would avoid direct impacts to valley elderberry longhorn beetle, and habitat replacement would offset the loss of habitat from development.**

**Impact BR-6: Development of the project area would remove low quality red-legged frog habitat, but would not result in adverse impacts to California red-legged frog.**

The project area contains low quality or unsuitable breeding habitat for the California red-legged frog, and suitable travel corridors do not exist between the project area and potentially suitable off-site aquatic habitats (WRA 2004a). Development of the project area would remove less than one acre of wetlands, drainages, and riparian habitat, but the project would preserve the primary drainages and associated aquatic habitats as open space. Direct impacts to California red-legged frog are not anticipated because the species is not expected to occur on-site due to the low quality of habitats and lack of travel corridors between off-site potentially suitable habitat. Based on the quality of habitats in the project area, impacts to California red-legged frog would be less than significant.

**Level of Significance before Mitigation: Less than significant because the project would not adversely affect California red-legged frog.**

**Impact BR-7: Development of the project area would result in the loss of habitat for and potential take of the northwestern pond turtle.**

Northwestern pond turtles are known to occur within the adjacent off-site pond at Lumsden Park and may travel up to 1 mile from water sources for hibernation and breeding. Development of the project area would remove less than one acre of suitable foraging habitat, refugia, terrestrial movement corridors, and nesting habitat for the northwestern pond turtle. Individuals and nest sites may be directly affected by construction activities, resulting in injury or mortality. Indirect impacts would include loss of habitat and disturbance from increased human use associated with the development. Additionally, the development may result in increased mortality due to predation by domestic pets and intentional and unintentional take due to human activities, such as pet collection, road traffic, and introduction of non-native species. Direct and indirect impacts to the northwestern pond turtle could affect its regional population (a substantial adverse effect) and would result in a significant impact.

**Level of Significance before Mitigation: Significant.**

*Mitigation Measure BR-7a: Avoid direct impacts to northwestern pond turtles during construction activities.*

The City will require the applicant to conduct a pre-construction survey for northwestern pond turtles (in disturbance areas only) and implement measures to avoid direct take of individuals and impacts to nest sites during construction activities. If possible, the applicant should avoid vegetation clearing, grubbing, and grading during the pond turtle's peak breeding season (October 1 to March 1). Prior to construction activities, the construction contractor will install fencing around construction areas to prevent the movement of northwestern pond turtles into the project area during construction. The fencing will be buried into the ground to prevent pond turtles from accessing construction areas and will remain intact during construction activities.

Within 48 hours prior to construction activities, a qualified biologist will conduct a pre-construction survey of the fenced-off construction area. The biologist will look for adult pond turtles and nests containing pond turtle hatchlings and eggs (during breeding season). If an adult northwestern pond turtle is located in the designated construction area, the biologist will consult CDFG to determine a suitable aquatic site to move the turtle outside the construction area (possibly the reservoir at Lumsden Park). Individuals will be relocated prior to any construction activities. If an active pond turtle nest containing either pond turtle hatchlings or eggs is found in the construction area, the applicant should consult CDFG to determine and implement appropriate avoidance measures, which may include a "no-disturbance" buffer around the nest site until the hatchlings have moved to a nearby aquatic site.

Additionally, the applicant will provide special status species training to all work crews to inform them about applicable regulations surrounding the northwestern pond turtle's legal protections, identifying a northwestern pond turtle, and avoiding the pond turtle and contacting a designated representative (either the developer or the City) if they observe one in the project area.

*Mitigation Measure BR-7b: Provide signs in sensitive areas along trails to inform the public about northwestern pond turtles.*

The City will require the applicant to construct signs along the walking trails at sensitive areas to inform residents and visitors about the northwestern pond turtle. Signs should be posted at the man-made pond and near wetlands and drainages along the walking trails to inform the public about the sensitivity of the pond turtle and their presence in the project area. Information should include enforcement actions that would be implemented if pond turtles are purposefully harmed or collected, or if their habitat is intentionally damaged.

**Level of Significance After Mitigation: Less than significant because avoidance measures during construction would avoid direct impacts to northwestern pond turtles, and informative signs would reduce potential indirect impacts.**

**Impact BR-8: Development of the project area would result in the loss of habitat for and potential take of special status birds, nesting raptors, and nesting migratory and resident birds.**

The project would remove 69 acres of mixed oak forests and woodlands and less than one acre of riparian habitat for development and preserve 60 acres as open space. Removal of these habitats would result in the loss of foraging and nesting habitat for three bird species of special concern (Cooper's hawk, California spotted owl, and yellow warbler), as well as a variety of raptors and migratory and resident birds that may nest in the project area. Impacts associated with habitat loss would be minimal because of the preservation of suitable habitat in the project area and the minimal loss of habitat on a regional scale. Suitable habitat for each of these species is available to the northeast within the Eldorado National Forest and in other undeveloped areas surrounding the City of Placerville.

Construction activities associated with clearing, grubbing, and grading for new roads and housing pads as part of the project would cause temporary impacts to special status and protected birds in the project area. These activities could result in injury or mortality of individuals and could affect reproductive success of the species through direct impacts to nest sites, eggs, and young, if the birds nest in the project area. Impacts to nest sites would be limited to activities conducted between March 1 and August 31 (the general breeding period for birds). Indirect impacts would include noise and disturbance associated with the construction activities that cause birds in adjacent habitats to abandon their nests. Although temporary, construction impacts, especially during the breeding period, could affect the regional populations of these special status and protected species (a substantial adverse effect) and result in significant impacts.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure BR-8: Avoid impacts to nest sites during construction activities.*

The City will require the applicant to conduct pre-construction nest surveys in the project area (both disturbance and open space areas) within 30 days prior to construction activities that would occur during the breeding season for birds (March 1 to August 31).

The surveys will be conducted by a qualified biologist to identify and locate active nests of Cooper's hawk, California spotted owl, and yellow warbler as well as other bird species (raptors and songbirds). All active nest sites identified during field surveys should be flagged, and a 100-foot "no-disturbance" buffer for songbirds and 500-foot "no-disturbance" buffer for raptors would be established around the nest site using bright-colored flagging, stakes, and other means necessary to inform construction crews to avoid the area. Construction activities should be directed away from the nest site until the young have fledged or as determined appropriate by a qualified biologist or the CDFG. Trees containing active nests should be removed during the non-nesting season (September through February). If no active nests are found during the pre-construction surveys, no further measures relating to nest disturbances would be necessary.

Construction crews will also be informed about the identification and regulatory protections of the special status species that may nest in the project area.

**Level of Significance After Mitigation: Less than significant because implementation of avoidance measures during construction would reduce adverse impacts to nesting special status birds.**

**Impact BR-9: Development of the project area would result in the loss of foraging and roosting habitat and potential take of special status bat species.**

The project would remove 70 acres of potential foraging and roosting habitat for pallid bat, Townsend's big-eared bat, silver-haired bat, long-eared myotis, and Yuma myotis. Impacts associated with habitat loss would be minimal because of the preservation of suitable habitat in the project area (60 acres) and the minimal loss of habitat on a regional scale. Suitable habitat for each of these species is available to the northeast within the Eldorado National Forest and in other undeveloped areas surrounding the City of Placerville.

Construction activities associated with clearing, grubbing, and grading for new roads and housing pads and removal of existing structures (residences and unused buildings) would cause temporary impacts to special status bats in the project area. These activities could result in injury or mortality of individuals and could affect reproductive success of the species through direct impacts to roost sites (day and maternity) and young, if the bats reproduce in the project area. Indirect impacts would include noise and disturbance associated with the construction activities that cause bats in adjacent habitats to abandon their roost sites. Although temporary, construction impacts, especially during the reproductive period (generally April to October), could affect the regional populations of these special status species (a substantial adverse effect) and result in significant impacts.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure BR-9: Avoid impacts to roosting bats and their young during construction.*

The City will require the applicant to conduct pre-construction bat surveys in areas subject to disturbance within 30 days prior to construction activities that would occur during the reproductive period for bats (April 1 to October 31).

The surveys will be conducted by a qualified biologist to identify and locate active roost sites of special status bats. The survey should focus on large trees and structures that would be removed. All active maternity roost sites identified during field surveys should be flagged, and a 100-foot “no-disturbance” buffer should be established around the site using bright-colored flagging, stakes, and other means necessary to inform construction crews to avoid the sites. Construction activities should be directed away from the roost site until the young are capable of flying or as determined appropriate by a qualified biologist or the CDFG. For active day roost sites, bats should be excluded from or otherwise removed from the trees or structures prior to removal or demolition. If no active roost sites are found during the pre-construction surveys, no further measures relating to roost disturbances would be necessary.

For bats that must relocate due to project activities, the applicant should provide bat houses within the open space areas for every roost destroyed by the project. Construction design of the bat houses should be approved by a bat specialist to benefit the specific species that are affected.

Construction crews will also be informed about the identification and regulatory protections of the special status species that may occur in the project area.

**Level of Significance After Mitigation: Less than significant because avoidance and minimization measures during construction would reduce adverse impacts to special status bats.**

### **Significant and Unavoidable Impacts**

None.

## **3.8 CULTURAL RESOURCES**

This section describes the cultural resources setting for the project area and the known cultural resources located within the project area, and identifies the potential for unknown cultural resources to occur within the project area. The impact analysis discusses the potential for the project to affect cultural resources. Cultural resources include archaeological sites, features and isolated finds, built resources over 50 years of age, and paleontological resources. The information is summarized from the cultural resources inventory for the project (Appendix G).

### **3.8.1 Regulatory Setting**

#### **Federal**

Cultural resources that may be present in the project area could include some or all of the following types of resources, which would be subject to applicable regulations:

- Historic Properties
- Native American Cultural Items
- Native American Sacred Sites
- Archaeological Sites
- Other Cultural Resources

Archaeological and architectural resources (buildings and structures) are protected through the **National Historic Preservation Act (NHPA)** of 1966 (16 USC 470f) and its implementing regulation, Protection of Historic Properties (36 CFR Part 800), the Archaeological and Historic Preservation Act (ARPA) of 1974 and of 1979. Section 106 of the NHPA requires federal agencies, prior to implementing an undertaking (e.g., issuing a federal permit), to consider the effects of the undertaking on historic properties and to afford the Advisory Council on Historic Preservation (ACHP) and the State Historic Preservation Officer (SHPO) a reasonable opportunity to comment on any undertaking that would adversely affect properties eligible for listing in the National Register of Historic Places (NRHP). Section 101(d)(6)(A) of the NHPA allows properties of traditional religious and cultural importance to a Native American tribe to be determined eligible for inclusion in the NRHP. Under the NHPA, a find is significant if it meets the NRHP criteria listed in Title 36 CFR 60.4.

The NHPA establishes the federal government policy on historic preservation and the programs, including the NRHP, through which this policy is implemented. Under the NHPA, historic properties include “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places” (16 USC 470w [5]).

The NHPA authorizes the maintenance of the NRHP, which facilitates the preservation of historic properties possessing integrity and meeting at least one of the following four criteria delineated at 36 CFR 60.4 (Advisory Council on Historic Preservation 2000). The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association and:

- a. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- b. That are associated with the lives of persons significant in our past; or
- c. That embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d. That have yielded, or may be likely to yield, information important in prehistory or history.

## **State**

The **California Environmental Quality Act (CEQA)** Guidelines (14 California Code of Regulations [CCR] Sec. 15064.5) establish criteria for determining the significance of impacts to archeological and historical resources. A project that may cause a “substantial adverse change in the significance of an historical resource” is considered to have a significant environmental effect. The term “historical resource” includes, but is not limited to:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical

Resources (CRHR) (Public Resources Code [PRC] Sec. 5024.1, 14 CCR, Sec. 4852)

- A resource included in a local register of historical resources (as defined by PRC Sec. 5020.1[k]), or identified in an historical resource survey meeting the requirements of PRC Sec. 5024.1(g) (presumption of historical significance).
- Generally, a resource that meets at least one of the criteria for CRHR listing, including:
  - Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
  - Is associated with the lives of persons important in our past;
  - Embodies the distinctive characteristics of a type, period, region or method of installation, or represents the work of an important creative individual, or possesses high artistic values; or
  - Has yielded, or may be likely to yield, information important in prehistory or history.

A "substantial adverse change in the significance of an historical resource" means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. A lead agency must identify potentially feasible, enforceable mitigation measures to mitigate these impacts. For archeological sites, preservation in place is the preferred mitigation approach (14 CCR 15126.4[b] [3]).

## Local

The **City of Placerville General Plan Policy Document** (1989a) provides goals for the preservation and protection of Placerville's historical and Native American heritage. Relevant policies within these goals include protecting and enhancing historically and architecturally significant buildings and sites, not knowingly approving any public or private project that may adversely affect an archeological site, conducting archaeological site evaluations as appropriate, and attempting to mitigate any adverse impacts according to the recommendations of a qualified archaeologist.

### 3.8.2 Environmental Setting

The project area is situated on the northwest slope of Texas Hill in the Sacramento Valley, within an area of the American River Watershed that was occupied by different prehistoric cultures dating to at least 6,000 years ago. Several stratified prehistoric archaeological sites are located within the watershed and El Dorado County. It is also within the southernmost territory historically occupied by the Nisenan, and borders the northernmost extent of traditional lands attributed to the Plains Miwok. Both are indigenous Penutian-speaking central California groups. The ethnographic pattern of land use may have been established as early as 600 years ago, with major villages located along the banks of rivers or large tributaries. The Nisenan village of *Peolu* was sited at the current location of the city of Placerville on a tributary of the American River. Like most Native Californians, the Nisenan and Plains Miwok relied on acorns as a staple food, which were collected in the fall and then stored before processing with bedrock or portable mortars and pestles (Moratto 1984). In terms of seasonal resources, the drainage systems of the South Fork of the American River and the North Fork of the

Cosumnes River north and south of the project, respectively, would have been a very productive environment during prehistoric and ethnohistoric times. A wide variety of tools, implements, and enclosures were used for hunting, collecting, or processing resources (e.g., bows and arrows, traps, nets, seed beaters, burden baskets, digging sticks, anvils, knives, and twined basketry) (Kroeber 1925; Levy 1978; Wilson and Towne 1978).

Early historic land use in the project vicinity focused on placer mining subsequent to the discovery of gold in 1848 at “Old Dry Diggings,” within today’s city of Placerville. Later known as Hang Town, the name Placerville was given to the town in 1850, and it was incorporated four years later. Placerville served as a central hub for the regional mining operations; a branch of the Southern Pacific Railroad, the Camino, Placerville & Lake Tahoe Railroad, and the Pony Express all ran through the town. The mines around the Placerville area, including Spanish Hill, which is immediately west of the current project and a California Point of Historical Interest, produced more than \$25 million in gold. Mining methods changed from placer and drift to hydraulic techniques; water from the South Fork of the American River was supplied to the mines by numerous canals or ditches surrounding the project area. The South Fork Canal Company system, incorporated in 1852, included 155 miles of ditches; a section of the El Dorado Canal completed between 1873 and 1876 provided water to the hydraulic mines as well as a consistent supply of water to the city of Placerville. The flume structures on the El Dorado Canal near Plum Creek, located approximately 16 miles east of the project, are considered one of the greatest engineering feats in California history.

Two known cultural resources are located within the project area. Prehistoric archaeological site PL-Lum-01 is a sparse surface scatter of trade beads with no subsurface component that has been extensively pot-hunted for more than 70 years. The research potential of the site has been exhausted through survey and excavation. The site is not significant, does not qualify as a historic property or historical resource, and is recommended not eligible for listing on the NRHP and CRHR.

A 4,000-foot segment of a historic-era water conveyance system, the El Dorado Canal (P-9-1831-H), is within and parallels the southern boundary of the project. The canal was constructed between the mid-1850s and 1876, and was likely part of the South Fork Canal constructed ca. 1854; the El Dorado Canal was begun in 1873. The historic fabric of this canal segment has been altered, and it has not been used to convey water since the late 1960s. The canal lacks integrity and has no potential to yield additional information on the history of the area. The segment does not qualify as a historic property or historical resource, and is recommended not eligible for listing on the NRHP and CRHR.

No sites of traditional Native American religious or cultural significance, including sacred sites or contemporary use areas, have been identified in the project area through formal processes. However, the local Native American community identified three areas within the project area as highly sensitive for Native American materials. No cultural resources were found during intensive surface survey of these three areas. Therefore, no significant cultural resources are known to be found within the project area. Nevertheless, considering the results of the literature search and the pattern of land use during prehistoric and ethnographic periods, as well as local historic land use, the project area is considered highly sensitive for the discovery of prehistoric, ethnohistoric, or historic cultural material or subsurface deposits.



Twenty-two fossil localities occur within El Dorado County; the closest locality is in Placerville and contains Quaternary invertebrate fossils (University of California Museum of Paleontology 2007). A portion of the project site is underlain by the Merhten Formation, which has produced late Miocene plant fossils at one locality in El Dorado County and significant Miocene age fossils from localities south of the project area, with more than 200 paleontological resources recorded throughout the Central Sierra Nevada foothills. Examples of finds from the Merhten Formation in Stanislaus County include a partial skeleton of the extinct ground sloth (*Pliometanastes protistus*) and vertebrate fossils at Turlock Lake State Park (Hirschfeld 1981; Wagner 1976). Because this formation has produced significant vertebrate fossils, the Merhten Formation is considered to have high sensitivity using criteria established by the Society of Vertebrate Paleontology (SVP 1995).

### 3.8.3 Impact Analysis

#### Methodology

The environmental setting is based on the following: a literature search by the North Central Information Center (NCIC) at California State University, Sacramento; Sacred Lands file search by the Native American Heritage Commission (NAHC) and related communication with local Native American groups and individuals; pedestrian surveys conducted in November 2003 and August 2007; excavation of prehistoric site PL-Lum-01 in December 2003 and January 2004; and a search of the University of California Museum of Paleontology database.

This impact analysis is based on the cultural resources inventory (Appendix G) and relevant regulations. The project was analyzed in terms of its potential to affect known cultural resources (PL-Lum-01 and El Dorado Canal), and undocumented and potentially significant cultural resources, including buried human remains, within the project area.

#### Levels of Significance

Under CEQA Guidelines Appendix G Criteria, adverse impacts to cultural resources would be considered significant if the proposed project would:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5. (Defined as listed or determined eligible for a state or local register, or any building, structure, or object that is determined to be historically significant to California history.)
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- Directly or indirectly destroy a unique paleontological resource or site.
- Disturb any human remains, including those interred outside of formal cemeteries.

## **Impacts and Mitigation Measures**

### **Impact CR-1: Ground disturbance could affect known cultural resources.**

Prehistoric archaeological site PL-Lum-01 and a 4,000-foot segment of the historic-era El Dorado Canal (P-9-1831-H) have been formally recorded and their research potential exhausted. The resources have been recommended ineligible for inclusion on the NRHP and CRHR. Any effect of the project to these resources would therefore be less than significant. The local Native American and non-indigenous residential community has, however, expressed concerns about the fate of site PL-Lum-01 since its data potential was lost due to pot-hunting.

### **Level of Significance Before Mitigation: Less than significant because the project would not affect any significant cultural resources.**

*Mitigation Measure CR-1: Document surface artifacts at site PL-Lum-01 and donate to El Dorado Miwok tribe.*

The remnants of the surface scatter at prehistoric archaeological site PL-Lum-01 should not be destroyed but should be documented by a qualified archaeologist who meets the Secretary of the Interior's Standards for archaeologists (National Park Service 1983) and a representative of the El Dorado Miwok Tribe prior to project implementation at the site, and any remaining artifacts should be donated to the El Dorado Miwok Tribe.

### **Impact CR-2: Ground disturbance could affect undocumented cultural resources, including human remains.**

The project area is considered highly sensitive for the discovery of prehistoric, ethnohistoric, or historic cultural material or subsurface deposits, and it is possible that undocumented cultural resources, including human remains, may be affected during construction or ground-disturbing activities. Prehistoric or ethnohistoric materials might include flaked stone tools, tool-making debris, stone milling tools, shell or bone items, and fire-affected rock or soil darkened by cultural activities (midden); examples of significant discoveries would include villages and cemeteries. Historic materials might include metal, glass, or ceramic artifacts; examples of significant discoveries might include former privies or refuse pits. Due to the possible presence of undocumented cultural resources within the project area, which may have historical significance, construction-related impacts on cultural resources would be significant.

### **Level of Significance Before Mitigation: Significant.**

*Mitigation Measure CR-2a: Implement construction monitoring by a qualified archaeologist for the protection of cultural resources, including human remains.*

The City will require the applicant to monitor ground-disturbing activities in native sediments/soils by a qualified archaeologist who meets the Secretary of the Interior's Standards for archaeologists (National Park Service 1983). Construction work within stockpile and/or fill material does not require monitoring. The monitor will be empowered to temporarily halt construction in the immediate vicinity of a discovery while it is evaluated for significance. Construction activities could continue in other areas. If the discovery proves to be significant, additional work, such as data recovery excavation,

may be warranted. At the conclusion of archaeological monitoring, a monitoring report will be prepared and submitted to the City of Placerville and to the NCIC.

*Mitigation Measure CR-2b: Implement construction monitoring by a qualified Native American for the protection of culturally sensitive areas, including human remains.*

In addition to a qualified archaeologist, ground-disturbing activities in native sediments/soils within the three areas considered highly sensitive by members of the local Native American community and within the boundaries of prehistoric archaeological site PL-Lum-01, as well as a 10-meter (65-foot) buffer zone around the boundaries of that site, will be monitored by a qualified representative of the local Native American community. If human remains are discovered during the course of ground-disturbing activity outside these areas, a qualified Native American will monitor the discovery, in consultation with the recommendations provided by the NAHC and Most Likely Descendant (MLD).

*Mitigation Measure CR-2c: Implement inadvertent discovery measures for the protection of cultural resources, including human remains.*

If cultural resources, including human remains, are discovered during construction without an archaeological monitor present, the applicant will halt all activities within 100 feet of the find until a qualified professional archaeologist can evaluate it. The archaeologist will examine the resources, assess their significance, and recommend appropriate procedures to either further investigate or mitigate adverse impacts on the resources encountered in conformance with the protocols set forth in PRC Section 5097.98. Any human remains encountered during construction will be treated in accordance with the California Health and Safety Code Section 7050.5.

**Significance Level After Mitigation: Less than significant because implementation of mitigation measures would ensure that any undocumented cultural resources or inadvertent discoveries of cultural resources during construction or ground-disturbing activities would be properly recorded and the historical significance of the resources documented.**

**Impact CR-3: Ground disturbance could affect undocumented paleontological resources.**

The Mehrten Formation is considered to have high sensitivity for the discovery of Miocene-age vertebrate and plant fossils. Due to the possible presence of undocumented paleontological resources within the project area, construction-related impacts on paleontological resources would be significant.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure CR-3: Implement inadvertent discovery measures for the protection of paleontological resources.*

If paleontological resources are discovered during construction, the applicant will halt all activities in the immediate vicinity of the find until a qualified professional paleontologist can evaluate it. The paleontologist will examine the resources, assess their significance,

and recommend appropriate procedures to either further investigate or mitigate adverse impacts on the resources encountered.

**Significance Level After Mitigation: Less than significant because implementation of mitigation measures would ensure that any discoveries of unknown paleontological resources during construction or ground-disturbing activities would be properly recorded and documented.**

### **Significant and Unavoidable Impacts**

None.

## **3.9 AESTHETICS**

This section evaluates changes to the visual character of the project area and vicinity caused by project implementation. As discussed in the Initial Study (Appendix A), compliance with City lighting standards would reduce light or glare impacts to a less-than-significant level. This issue is not discussed further in the EIR.

### **3.9.1 Setting**

#### **Regulatory Setting**

The **California State Scenic Highway Program** is administered by Caltrans. The goal of the program is to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of the adjacent land (California Streets and Highways Code, Section 260 et seq.). A scenic corridor is the land generally adjacent to and visible from the highway, and is identified using a motorist's line of vision (Caltrans 2007).

To gain an official scenic designation, a city or county must nominate the highway and identify and define the scenic corridor. The local nominating agency must also adopt ordinances, zoning, or planning policies to preserve the scenic quality of the corridor, or document that the regulations or policies already exist. These ordinances and/or policies of the nominating agency are considered the Corridor Protection Program (Caltrans 2007).

U.S. 50 between the Government Center interchange in Placerville and South Lake Tahoe is an officially designated scenic highway, and was nominated by El Dorado County. The County has a general plan policy directing staff to prepare an ordinance establishing standards for the protection of scenic highways, including U.S. 50. The County has not yet adopted a scenic highway ordinance.

The **City of Placerville General Plan** (1989) identifies goals and policies that seek to preserve and enhance the City's existing community character and sense of place by developing projects that build upon positive design features. Applicable policies relate to protection and management of the City's tree cover; creative site planning for hillside developments to preserve ridgelines and minimize grading and vegetation removal (General Plan Policy VII.A.2); use of planned unit residential developments to maximize efficient and creative use of parcels; and promoting the enhancement and visual distinctiveness of U.S. 50 entrances to Placerville.

Figure IX-1 of the General Plan Background Report (City of Placerville 1989b) shows two secondary ridgelines traversing the project area in a southeast-northwest orientation. These parallel ridgelines generally follow with the northeastern and southwestern edges of the project area.

### **Environmental Setting**

Placerville's visual setting is consistent with its location at 2,000 feet above mean sea level (msl) in the Sierra Nevada foothills. Views from any given location may include forested ridges, hillsides and canyons, creeks, homes, offices, businesses, and roads. From some areas of the City, the viewshed includes the high mountains of the Sierra Nevada crest 30 miles to the east.

The visual character of the project area is consistent with its location on the eastern edge of Placerville, and its current low density residential land use. Views of the project area include canyons, ridgelines, and hillsides vegetated with mixed hardwood forest, woodland, and chaparral (Photograph 3.9-1). Several ephemeral drainages, seeps, and springs are also located within the project area. Five rural residences and associated outbuildings, roads, and power lines are visible in the central portion of the project area (Photograph 3.9-2). Other than views of mixed hardwood forest, seeps, and springs, no scenic resources (e.g., rock outcroppings, historic buildings) are located within the project area. The project area can be seen from U.S. 50, a designated scenic highway. But there are no scenic vistas across the project area from public viewpoints.

### Views from the Project Area

Views from the project area are influenced by trees, thick vegetation, and topography that screen or obstruct views from many locations. Close range views from the project area, where available, include nearby residences, Lumsden Park (including the reservoir), businesses, roads, and forested ridges and hillsides. Long range views from the project area, where available, can include the commercial corridor along Broadway and U.S. 50, residential buildings, and the foothills and peaks of the Sierra Nevada.

### Views of the Project Area

Lumsden Ranch is visible from some areas of Placerville, but its location is not visually prominent. Views of Lumsden Ranch are influenced by trees, thick vegetation, and topography that screen or obstruct views from many off-site locations. Much of the project area lies within two adjacent canyons flanked by ridges on the southwest and northeast, and by Texas Hill on the south. The two ridges block views from the west and northeast.

The project area is visible from homes along the northern crest of Texas Hill (i.e., the north side of Barrett Drive and the west side of Country Club Drive). These homes sit atop Texas Hill, substantially higher than most of the project area. Views of Lumsden Ranch from these homes include forested canyons and hillsides below; however, some views are screened or blocked by vegetation.

Views of Lumsden Ranch are available from a short stretch (about 500 feet) of Barrett Drive abutting the project area, but trees and shrubs at the southern edge of the property block views into the interior of Lumsden Ranch and beyond. Views of Lumsden Ranch from most other locations along Barrett Drive and Country Club Drive are blocked by homes and vegetation.

From the north, some close range views are available from Lumsden Park, from the northern end of Wiltse Road, and from a few nearby homes. These views include thick vegetation near the project boundary, and roads and driveways entering the project area.

Ridgelines block most views of the project area from Broadway, but the uppermost portions (along the north side of Texas Hill) can be seen from Broadway between Blairs Lane and Wiltse Road, about 0.75 mile to the northwest (Photographs 3.9-3 and 3.9-4). Trees and buildings, however, block most views of the project area. The project area does not constitute a substantial component of the viewshed from Broadway.

Lumsden Ranch is visible from a quarter mile stretch of U.S. 50 near Schnell School Road, about 1/3 mile northwest of the project area. U.S. 50 is higher than Broadway, so more of the project area is visible from the freeway than from street level. The project area is noticeable to motorists on eastbound U.S. 50; but less noticeable to westbound motorists because it is not visible to them until they are nearly past the project area. To see Lumsden Ranch, westbound motorist must look south-southeast (i.e., across their left shoulder). The commercial corridor directly adjacent to Broadway and U.S. 50 is a substantial component of the views along U.S. 50 near Schnell School Road. A few homes are visible in the forested hills and canyons beyond the commercial corridor. Although visible, the project area is not a substantial component of the visual character of U.S. 50. Because Lumsden Ranch is less noticeable to westbound drivers, it is not a substantial visual component of the U.S. 50 entrance to Placerville from the east.

Views of the Canyon View Drive alignment are obstructed from most locations by thick vegetation; but, the northern end of the alignment is visible from the proposed Broadway/Canyon View Drive intersection. Trees along the southwest side of U.S. 50 block views of Canyon View Drive from the freeway.



**Photograph 3.9-1. Typical view of mixed hardwood forest within the project area.**



**Photograph 3.9-2. Residences within the project area.**







Photograph 3.9-3. View of project area from Broadway near Blairs Lane.



Photograph 3.9-4. View of project area from Broadway near Wiltse Road.



### 3.9.2 Impact Analysis

#### Methodology

Visual impacts were evaluated by comparing expected visual changes the project would generate against the existing visual character of the project area and vicinity. The information presented in the setting is based on field observations, photographs, and aerial photography interpretation. The analysis also considers whether the project would affect scenic vistas from public viewing areas.

#### Criteria for Determining Significance

Adverse impacts to aesthetics would be considered significant if the project would:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

#### Impacts and Mitigation Measures

**Impact A-1: The project would change views from several private homes, but would not block views from public viewpoints or private homes.**

The project would not block public views to a public resource, because there are no scenic vistas across the project area from public viewpoints. The project is also not expected to block existing views from private homes. Only the homes along the north side of Texas Hill (i.e., the north side of Barrett Drive and the west side of Country Club Drive) have views across the project area, although some views are blocked by vegetation growing on the residential property and on Lumsden Ranch.

New homes would be built along Canyon View Drive downhill from the existing homes. Most pads for the new homes would be built at least 50 feet below the level of the existing homes directly upslope. A few pads, however, would be built about 35 feet below the existing homes (See Figure 2-2 in Chapter 2). The maximum building height within the R-1, 20,000 zone (the zoning designation for the southern portion of the project area) is 35 feet. The tops of the new homes along Canyon View Drive would not be higher than the ground elevation of the existing homes upslope and, therefore, would not block views from the adjacent homes. This is a less-than-significant impact.

**Level of Significance Before Mitigation: Less than significant because the new project homes would be located sufficiently below existing viewpoints.**

**Impact A-2: The project would change the visual character of the project area, but would not degrade the visual character of the project area.**

The project would include vegetation removal and construction of new homes and roads on forested ridges and hillsides, thereby changing the visual character of some portions of the project area. The project, however, would not substantially degrade the existing visual character or quality of the project area.

The project has been designed to retain about 49 percent of the existing tree canopy cover, and would retain about 56 percent (75 acres) of the project area as open space. The open space would include nearly all of the drainages, seeps, and springs within the project area. The open space would be arranged in relatively large contiguous areas, thereby conserving much of the natural character of the project area in these locations.

The topography of the project area would require retaining walls along many cut and fill areas, including roadways. The applicant is proposing keystone walls or similar types of walls for road embankments. Where high retaining walls are required, landscaped terraces would be included within the walls so the retaining walls would be visually covered by trees and other vegetation within a few years, thereby reducing the visual impact of the retaining walls.

The project has been designed to minimize alteration of ridgelines, and includes ridgeline grading in only two locations. Canyon View Drive would cross the ridge on the northeast side of the project area, and the road would be cut perpendicularly across the lowest section of the ridge to provide an acceptable grade for the road. No other alteration of this ridgeline is proposed. Grading is also proposed on the western end of Texas Hill where Canyon View Drive would intersect with Barrett Drive and where three homes would be built between Barrett Drive and Canyon View Drive (i.e., adjacent to existing homes on Barrett Drive). None of this grading work would result in substantial alteration of the ridgelines. The project, therefore, would be consistent with General Plan Policy VII.A.2.

After construction, the visual character of the project area would be a planned development consisting of new homes, streets, relatively large open space areas, and landscaping, and would appear consistent with other residential hillside communities in the surrounding area. The project, therefore, would not substantially degrade the existing visual character or quality of the project area. This is a less-than-significant impact.

**Level of Significance Before Mitigation: Less than significant because the project's visual character would be consistent with other hillside communities in the surrounding area.**

**Impact A-3: The project would change views of the project area from off-site locations, but would not substantially degrade the quality of public or private views.**

The project would not substantially degrade views of the project area from off-site locations. Public viewpoints near Lumsden Ranch include the Broadway commercial corridor, U.S. 50, Lumsden Park, and Wiltse Road. Private viewpoints include the homes along the north side of Barrett Drive and the west side of Country Club Drive, and a few homes near the northern project area boundary. All other viewpoints would be more distant and therefore less affected by visual changes to the project area.

Views of Lumsden Ranch from Broadway are limited to the section of Broadway between Blairs Lane and Wiltse Road. The project area does not constitute a substantial component of the viewshed from Broadway. Only the uppermost portion of the project area can be seen from Broadway; most the project would not be visible (Photos 3 and 4). Views of the development from Broadway would include homes along Canyon View Drive, and landscaped slopes and retaining walls. Trees remaining in the center of the project area may partially screen these features from view. As discussed in Impact A-2 above, changes to the project area would not degrade the visual character of the project area and, therefore, would not degrade the quality of the views from Broadway.

Lumsden Ranch is visible from a quarter mile stretch of U.S. 50 near Schnell School Road, about 1/3 mile northwest of the project area. Although visible, the project area is not a substantial component of the visual character of U.S. 50, and is primarily noticeable to eastbound motorists. Views from U.S. 50 would include homes, landscaped slopes, and retaining walls. Trees remaining in the center of the project area may partially screen these features from view. To motorists on U.S. 50, the project would appear visually consistent with other hillside communities along U.S. 50 near Placerville. In addition, as discussed in Impact A-2 above, changes to the project area would not degrade the visual character of the project area and, therefore, would not degrade the quality of the views from U.S. 50.

In addition, because Lumsden Ranch is less noticeable to westbound drivers, it is not a substantial visual component of the U.S. 50 entrance to Placerville from the east. The project would not degrade the visual distinctiveness of the eastern U.S. 50 entrance to Placerville.

Views of the project area from Lumsden Park and Wiltse Road include thick vegetation near the project boundary, and roads and driveways entering the project area. With project implementation, views from these areas would include homes, roads, landscaping, and natural vegetation, consistent with the existing visual character of this residential area. Roads and driveways entering the project area would be removed. Project changes would not substantially degrade the quality of the views from Lumsden Park and Wiltse Road.

Views of Lumsden Ranch from nearby homes would also include homes, roads, landscaping, and natural vegetation, consistent with the existing visual character of this residential area.

In summary, the project would not substantially degrade views of the project area from off-site locations. This is a less-than-significant impact.

**Level of Significance Before Mitigation: Less than significant because the project would not substantially degrade views of the project area from off-site locations.**

### **Significant and Unavoidable Impacts**

None.

### **3.10 TRANSPORTATION AND CIRCULATION**

This chapter presents the potential transportation and circulation impacts resulting from implementation of the Lumsden Ranch project. Project-generated effects on the roadway, transit, bicycle, and pedestrian systems are evaluated against the environmental setting (existing) and long term cumulative conditions. The study area includes key transportation facilities within Placerville along the U.S. 50, Broadway, and Main Street corridors from approximately Bedford Avenue easterly to Point View Drive. Fehr & Peers completed the transportation analysis presented in this chapter. Appendix H of this EIR includes technical discussions and data sheets used for the analysis.

During the scoping period, in response to the Notice of Preparation, comments were received from Caltrans concerning the following issues. Each of these issues has been addressed in the analysis of transportation and circulation impacts presented in this chapter.

- Analysis of impacts should include the U.S. 50/Schnell School Road interchange, ramp intersections, and the Schnell School Road/Broadway intersection.
- Analysis scenarios should include Existing, Existing plus Project, Cumulative without Project, and Cumulative with Project. In addition, an analysis of the project's Construction Year (Year 2010 + background growth) should be performed.
- Analysis should include Level of Service and traffic volumes for all intersection approaches and turn movements for the AM and PM peak periods.
- Analysis should be performed according to the procedures contained in the year 2000 update to the Highway Capacity Manual along with Caltrans' Guide for the Preparation of Traffic Impact Studies.

#### **3.10.1 Regulatory Setting**

##### **California Department of Transportation (Caltrans)**

The Guide for the Preparation of Traffic Impact Studies (Caltrans 2002) summarizes the state's policies applicable to state highways, including U.S. 50. These guidelines identify when a traffic impact study is required, what scenarios should be analyzed, and what analysis methodologies should be used. The state's level of service (LOS) policy is stated in the guidelines as follows:

Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on state highway facilities, however, Caltrans acknowledges that this may not be always feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing state highway facility is operating at less than the appropriate target LOS, the existing measure of effectiveness should be maintained (Caltrans 2002).

### **State Route 50 Transportation Concept Report**

The State Route 50 Transportation Concept Report (Caltrans 1998) is a long-term planning document that describes conditions on U.S. 50 and establishes a 20-year planning concept for the corridor. The concept LOS identified for U.S. 50 through Placerville is LOS E. With the exception of the Placerville Improvement Project currently under construction, U.S. 50 within Placerville is expected to remain in its current configuration due to topography and environmental constraints.

### **Western El Dorado County Short Range and Long Range Transit Plan**

The **Western El Dorado County Short Range and Long Range Transit Plan** (LSC Transportation Consultants 2003), which was commissioned by the El Dorado County Transportation Commission and adopted by the El Dorado County Transit Authority, identifies measures to improve and enhance transit service in El Dorado County. No changes are planned for the transit service provided near the project area.

### **City of Placerville General Plan**

The City of Placerville General Plan Policy Document (City of Placerville 1989) sets forth goals and policies that provide a framework for evaluating development proposals within Placerville. Following are key goals and policies identified in Section III of the Policy Document that directly relate to potential environmental impacts of the project on the transportation and circulation system.

- Goal A: To provide a circulation system that is correlated and adequate to support existing and proposed land uses, thereby providing for the efficient movement of goods and services within and through Placerville.
- Policy A.1: The City shall strive to attain the highest possible traffic levels of service consistent with the financial resources available and within the limits of technical feasibility.
- Policy A.2: Streets shall be dedicated, widened, extended, and constructed according to the City's Master Street Plan and the street cross-sections shown in the Street Standards figures in Part I. Rights-of-way shall be reserved according to the specifications of the Master Street Plan. Deviations from the street cross sections shown in Part I shall be allowed based upon a determination by the Public Works Director that safe and adequate public access and circulation are preserved by such deviations.
- Policy A.5: The City shall ensure that all newly-developing areas are served by at least two means of access.
- Goal B: To promote the development of a circulation system that preserves the historic nature and character of neighborhoods and districts, reinforces neighborhood identity and integrity, and minimizes adverse impacts on hillsides and vegetation.
- Policy B.1: New local streets shall be designed to discourage heavy through-traffic within residential neighborhoods.
- Goal C: To minimize traffic accidents and hazards.

- Policy C.1: The City shall discourage the creation or continuance of traffic hazards in new development and other proposals requiring the City to exercise its discretionary authority.
- Policy C.2: In the development of new projects, the City shall give special attention to maintaining adequate corner-sight distances at city street intersections and at intersections of city streets and private access drives and roadways.
- Goal D: To ensure the adequate provision of both on-street and off-street parking.
- Policy D.2: The City shall require all new development to provide an adequate number of off-street parking spaces to accommodate the typical parking demands of the type of development proposed for the site.
- Goal E: To provide a safe and secure bicycle route system.
- Policy E.8: Any future development adjacent to a bike trail shall be required to analyze impacts of the development on the bike trail and mitigate to the greatest extent possible identified impacts.
- Goal F: To promote convenient and safe pedestrian circulation.
- Policy F.3: In approving development projects, the City shall continue to require the construction of sidewalks connecting major pedestrian destinations, such as schools, hospitals, and government centers.
- Policy F.5: The City shall require all developments with a density of R1-2,000 or greater to provide a sidewalk on at least one side of any street that is developed as part of the project or is used as a perimeter street by the project.
- Goal G: To maintain coordinated, efficient bus service that provides an effective alternative to private automobile use.
- Goal H: To promote the continued maintenance, preservation, and improvement of the Placerville Airport.
- Goal I: To provide for safe pedestrian access for Placerville residents, with emphasis on routes to and from school.

Section VI of the Policy Document also includes a goal and policies that directly relate to potential environmental impacts of the project on the transportation and circulation system as shown below.

- Goal D: To prevent loss of lives, injuries, and property damage due to wildland and urban fires.
- Policy D.6: The City will ensure in approving and constructing new roads and streets that they are adequate in terms of width, turning radius, and grade to facilitate access by firefighting apparatus. All plans for new streets for areas within the Urban Service Area and/or sphere of influence of the City shall be reviewed by the Placerville Fire Department to ensure that City standards are met since there is a high probability that these areas will be annexed to the City at some point in the future.
- Policy D.8: Future roadway systems and networks shall be designed with at least one means of egress other than the access in all developing areas
- Policy D.9: The City shall not approve any medium or high density residential developments unless they are served by a street system with at least two streets capable of carrying peak load traffic.



- Policy D.13: Parking shall be restricted on streets less than 28 feet in width curb to curb.

Table 3.10-1 describes the project's consistency with the City of Placerville General Plan transportation policies.

**Table 3.10-1. General Plan Transportation Policy Consistency**

Policy Number	Finding	Discussion
A.1	Consistent with Mitigation	The project would result in degradation of LOS worse than City-preferred levels of LOS D. However, mitigation measures are identified that, when implemented, would fulfill the City's policy of striving to attain the highest possible traffic levels of service consistent with the financial resources available and within the limits of technical feasibility.
A.2	Consistent with Mitigation	The City's Master Street Plan shows various roadway connections in the vicinity of the project site that would be precluded by the Lumsden Ranch project including a connection between future subdivisions on Lumsden Ranch and the Eskaton at Spanish Hill site. The proposed site plan does not include such a connection.  The Master Street Plan would need to be amended to be consistent with the Lumsden Ranch project.  (Implementation of the Blairs Lane Connection alternative would render the project consistent with General Plan Policy A.2)
A.5	Consistent	The project would be served by an access point from Broadway and an access point from Barrett Drive.
B.1	Consistent	The new local streets that would be constructed with the project would discourage heavy through traffic due to their curvilinear nature and circuitous linkage from Broadway to/from Cedar Ravine Road.
C.1	Consistent with Mitigation	The project could potentially create traffic hazards since it includes roadways that are not consistent with the City's street standards related to street widths and street grade; however, mitigation is identified to ensure these standards are satisfied to the satisfaction of the Public Works Director.
C.2	Consistent with Mitigation	The project would provide adequate corner sight distance, to the satisfaction of the Public Works Director.
D.2	Consistent	The project would provide an adequate number of off-street parking spaces for a typical residential community.
E.8	Not Applicable	The project would not be adjacent to a bike trail.
F.3	Consistent with Mitigation	The project would construct sidewalks that provide access to nearby major pedestrian destinations including Lumsden Park.
F.5	Consistent	The project would provide a sidewalk on at least one side of each new street within the project.
D.6	Consistent with Mitigation	The site plan would be reviewed by the El Dorado County Fire Protection District, and identified mitigation measures would be implemented.
D.8	Consistent	The project would provide at least two means of access and egress.
D.9	Consistent	The project would provide at least two means of access and egress that are capable of carrying peak traffic load.
D.13	Not Applicable	The project would not include any streets less than 28 feet in width, curb-to-curb.

### **City of Placerville Non-motorized Transportation Plan**

The City of Placerville Non-motorized Transportation Plan (Placerville 2005) addresses pedestrian and bicycle travel. The plan provides a blueprint bikeway system and complies with state law. The resulting bikeway system includes about 3 miles of Class I, 9 miles of Class II, and 6 miles of Class III bikeways (See Figure 3.10-2 for definition of Class I, Class II, and Class III bikeways). The plan includes an inventory of the City's sidewalks and concepts that can be used to improve pedestrian travel conditions in the City.

The overall goal of the plan is to “[p]rovide a safe, efficient and convenient network of non-motorized facilities that establish alternative transportation as a viable option in the City.” This goal is supported by various policies. The policies applicable to the project include City review of all new developments for consideration of bicycle and pedestrian needs and linkages, except where prohibited by topography or safety considerations, and consideration of possible impacts that new projects may have on the non-motorized system, including the analysis of a need for through routes in subdivisions.

The plan identifies planned bikeway improvements, including the following, within the study area:

- Class II bike lanes at the following locations:
  - Mosquito Road between Dimity Lane and Broadway
  - Schnell School Road between Broadway and Carson Road
  - Broadway between Schnell School Road and Point View Drive
  - Cedar Ravine between Washington Street and Lyon Park
- Class III bike routes at the following locations:
  - Cedar Ravine between Main Street and Marshall Way
  - Washington Street between Main Street and Corker Street
  - Washington Street between Cedar Ravine and Sherman Street
  - Broadway between Main Street and Schnell School Road

### **City of Placerville Pedestrian Circulation Plan**

The City of Placerville Pedestrian Circulation Plan (City of Placerville 2007) provides project priorities and options for funding a subsequent Pedestrian Circulation Improvement Program for the ultimate construction of an extensive sidewalk network throughout the city. The plan includes the following goals:

- Promote convenient and safe pedestrian circulation (per City General Plan)
- Repair and upgrade the existing system of sidewalks
- Close gaps to increase the connectivity and viability of the existing system
- Expand the system to provide greater opportunities to pedestrians

The plan identifies planned sidewalk construction at the following locations within the study area:

- Broadway between Schnell School Road and Point View Drive
- Schnell School Road from Broadway to the north side of U.S. 50
- Cedar Ravine between Main Street and Victor Court
- Cedar Ravine between Washington and Lyons Park
- Wiltse Road between Broadway and Lumsden Park
- Washington Street between Cedar Ravine and Marshall Hospital

### 3.10.2 Environmental Setting

This section of the report documents the existing characteristics of the transportation system in the project study area. The term “existing” refers to field conditions as of the date of the Notice of Preparation in March 2007, which establishes the baseline condition upon which project impacts are evaluated.

#### Existing Transportation System

##### Roadway Network

Following is a brief description of key roadway facilities near the project area. Figure 3.10-1 shows the existing roadway network within the project study area.

**U.S. 50** is an east-west regional roadway that extends east from Sacramento to the Lake Tahoe area. Approaching Placerville from the west, U.S. 50 is a four-lane freeway with access-controlled interchanges. Through Placerville, the roadway becomes a four-lane expressway with at-grade signalized intersections at Canal Street, Spring Street, and Bedford Avenue. Between Bedford Avenue and Smith Flat School Road, U.S. 50 again becomes a four-lane freeway. East of Smith Flat School Road, U.S. 50 is a conventional highway with four lanes. U.S. 50 provides regional access to the project area via interchanges at Schnell School Road and Point View Drive.

**Broadway** is a main east-west route through the City of Placerville. It is a two-lane facility; some portions have a two-way left-turn lane. Near downtown, Broadway has low speeds and numerous access locations to local stores and driveways. To the west, it connects with Main Street. As Broadway extends to the east of downtown, vehicle speeds increase and surrounding areas become more rural; the posted speed limit is 40 miles per hour where Canyon View Drive would be located to provide project access.

**Barrett Drive** is a two-lane east-west residential roadway that connects with Country Club Drive to the east and dead-ends along the southern portion of the project area.

**Country Club Drive** is a two-lane northeast-southwest rural collector. The roadway has many curves and becomes steep on its southern portion. It connects Cedar Ravine Road to the south with Airport Road to the north.

**Airport Road** is a two-lane rural collector. The facility has many curves, including one very sharp turn near the Placerville general aviation airport, and the road has a rough surface in areas. Little or no shoulders exist along the roadway. It intersects with Broadway to the north and becomes Country Club Drive to the south.

**Cedar Ravine Road** is a two-lane roadway that travels from northwest to southeast. It intersects with Main Street in the north and Country Club Drive in the south. It is generally wider than most roads in the study area and occasionally offers on-street parking.

**Wiltse Road** is a two-lane residential roadway that travels northwest-southeast. In the north it connects to Broadway just west of Schnell School Road; to the south, it dead-ends near the northwest portion of the project area. Wiltse Road does not have sidewalks on either side of the roadway.

**Schnell School Road** is a two-lane collector roadway that connects Broadway with Carson Road. This roadway provides access to Louisiana Schnell Elementary School along with other various residential and non-residential uses. This roadway includes sidewalks on both sides except through its undercrossing of U.S. 50, where a sidewalk is only provided on the west side.

### Pedestrian and Bicycle Facilities

Pedestrian facilities include sidewalks or paved multi-use trails. Bicycle facilities include bike paths, bike lanes, and bike routes, as illustrated in Figure 3.10-2. No pedestrian or bicycle facilities are located near Lumsden Ranch.

### Transit Service

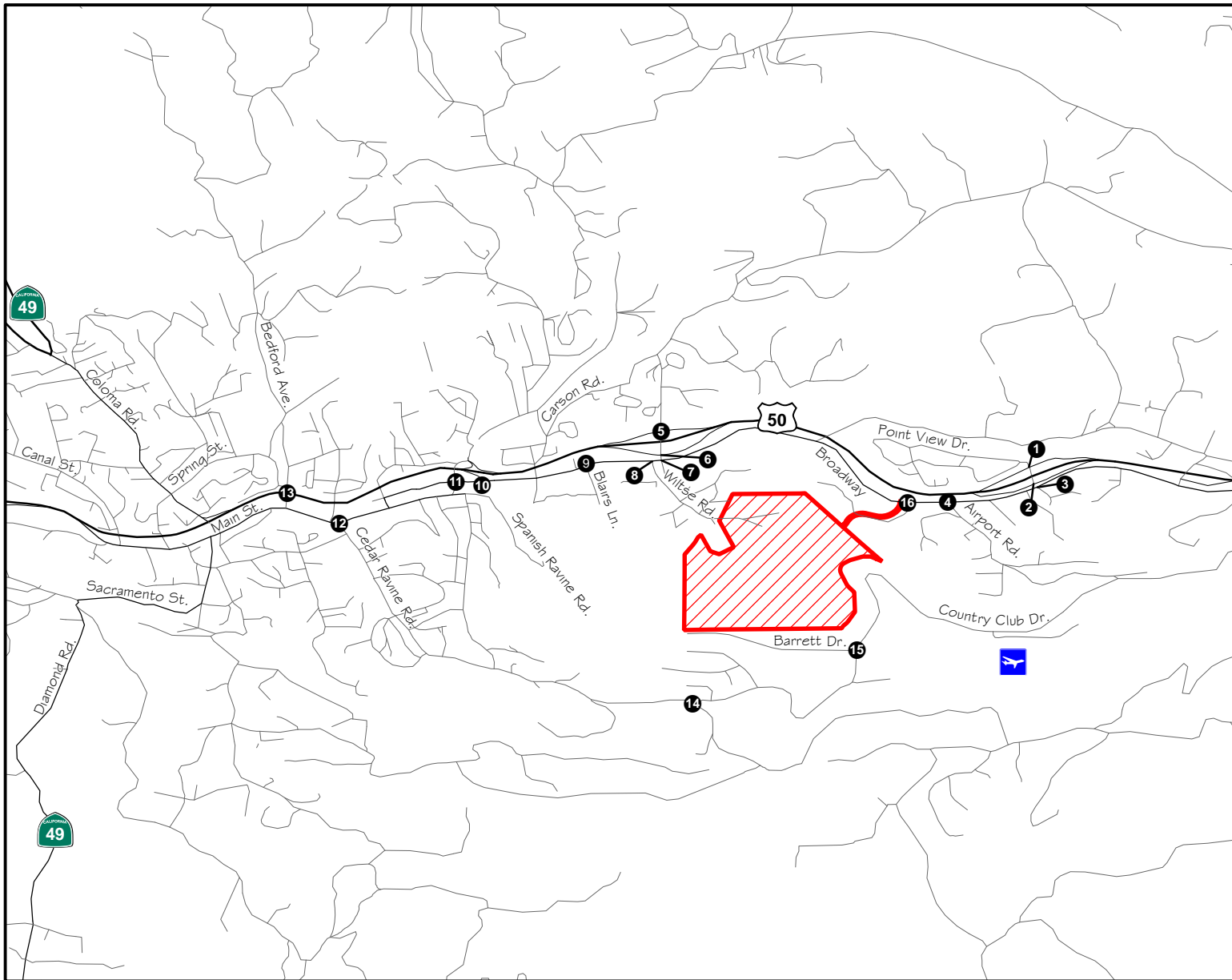
El Dorado Transit provides transit service within the study area, including fixed-route, dial-a-ride, and complimentary ADA paratransit. Route PL East provides service by request to destinations along Broadway adjacent to the project area. Commuter bus service to downtown Sacramento is provided from the Placerville park-and-ride lot. Dial-a-ride service is available to senior and disabled passengers only. Figure 3.10-3 shows available transit service within the study area.

### Rail Service

No rail service is provided near the project area.

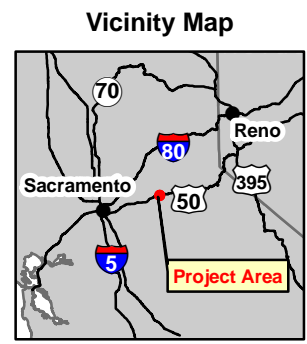
### Air Transportation

The Placerville Airport is located on Airport Road, approximately 1,200 feet southeast of the project area.



**Legend**

- 1 Study Intersections
- Project Area
- Airport



**Figure 3.10-1  
Project Location**

Lumsden Ranch EIR  
City of Placerville

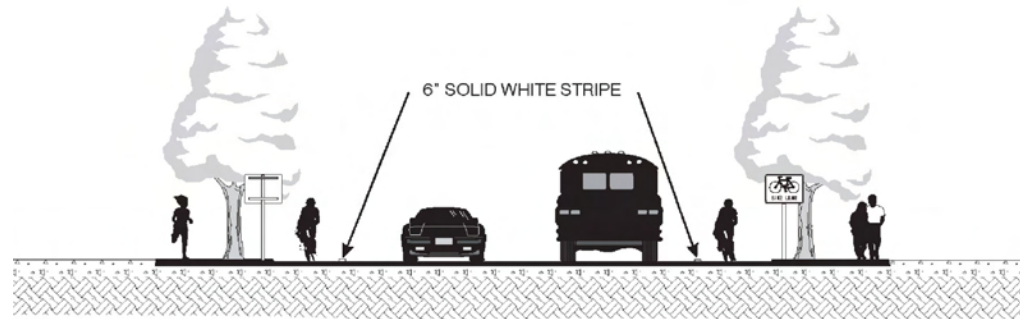






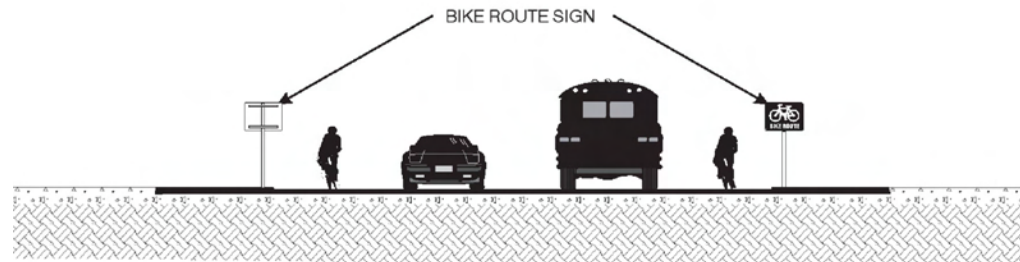
**CLASS I BIKEWAY (Bike Path)**

Provides a completely separated right-of-way for the exclusive use of bicycles and pedestrians with crossflow minimized.



**CLASS II BIKEWAY (Bike Lane)**

Provides a striped lane for one-way bike travel on a street or highway.



**CLASS III BIKEWAY (Bike Route)**

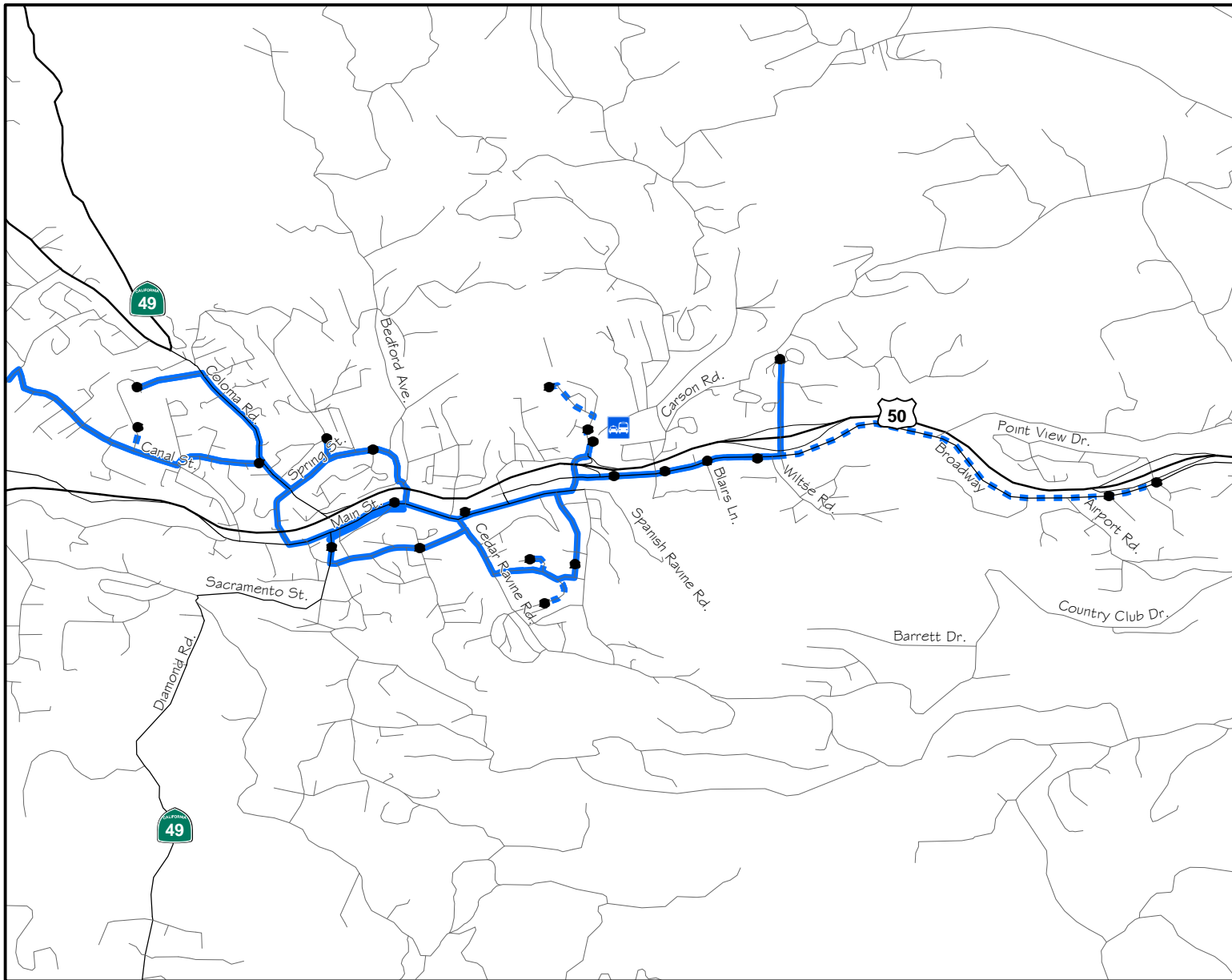
Provides for shared use with pedestrian or motor vehicle traffic.

**Figure 3.10-2  
General Bikeway  
Classifications**





Lumsden Ranch EIR  
City of Placerville

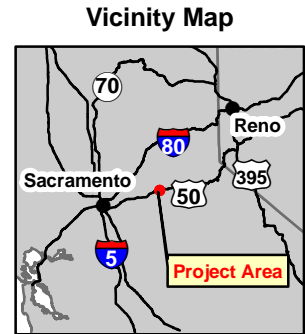






**Legend**

-  Park and Ride
-  Bus Stop
-  Bus Route
-  Request Only Service



**Figure 3.10-3  
Area Transit Service**

Lumsden Ranch EIR  
City of Placerville





## **Study Area**

The transportation impact analysis included the study locations listed below. These locations were identified in consultation with Placerville staff and after review of comments received during the scoping period. Each location was selected based upon the project's trip generation and assignment to ensure selection of the most appropriate study facilities.

Traffic operations at each study intersection and freeway facility were analyzed for the weekday morning and evening peak hours. The morning (a.m.) peak hour is defined as the highest one hour of traffic flow counted between 7:00 a.m. and 9:00 a.m. on a typical weekday. The evening (p.m.) peak hour is defined as the highest one hour of traffic flow counted between 4:00 p.m. and 6:00 p.m. on a typical weekday.

## **Intersections**

- Point View Drive/U.S. 50 westbound ramps
- Point View Drive/U.S. 50 eastbound ramps
- Point View Drive/Broadway/Monterey Road
- Airport Road/Broadway
- Schnell School Road/U.S. 50 westbound ramps
- Schnell School Road/U.S. 50 eastbound ramps
- Schnell School Road/Broadway
- Wiltse Road/Broadway
- Blairs Lane/Broadway
- U.S. 50 eastbound ramps/Broadway
- Mosquito Road/Broadway
- Cedar Ravine Road/Main Street
- Bedford Avenue/U.S. 50
- Cedar Ravine Road/Country Club Drive
- Country Club Drive/Barrett Drive
- Canyon View Drive/Broadway (future)
- Barrett Drive/Cedar Ravine Road (future)

## **Freeways (Interchange Ramp Junction Merge and Diverge)**

- U.S. 50/Point View Drive interchange
- U.S. 50/Schnell School Road interchange
- U.S. 50/Mosquito Road/Broadway interchange

## **Existing Traffic Volumes**

Fehr & Peers obtained existing morning and evening peak hour traffic counts from several sources, including Caltrans District 3, Fairway Pines Traffic Impact Study (Fehr & Peers 2007), Gateway Hotel and Gas Station Traffic Analysis (URS 2005), and traffic counts conducted by Fehr & Peers in April and June, 2007. Figure 3.10-4 shows existing morning and evening peak hour intersection turning movement volumes. Figure 3.10-5 shows existing freeway mainline and ramp volumes.

### Existing Traffic Operations

The operation of roadway facilities is described with the term “level of service.” LOS is a qualitative description of traffic flow based on factors such as speed, travel time, delay, freedom to maneuver, traffic volume, and roadway capacity. LOS ranges from LOS A (the least congested operating conditions) to LOS F (the most congested operating conditions). LOS E represents “at-capacity” operations. When volumes exceed capacity, stop-and-go conditions result, and operations are designated as LOS F.

### Intersections

Signalized and unsignalized intersections were analyzed using the methodology contained in Chapter 17 of the Highway Capacity Manual–Special Report 209 (Transportation Research Board 2000). The LOS is based on the average control delay expressed in seconds per vehicle. At two-way or side-street stop-controlled intersections, level of service is calculated for each movement, not for the intersection as a whole. For single-lane approaches, the control delay is computed as the average of all movements in that lane. At all-way stop-controlled intersections, LOS is based on the average delay experienced on all approaches. Table 3.10-2 summarizes the relationship between delay and LOS for signalized and unsignalized intersections.

**Table 3.10-2. Intersection LOS Criteria**

Level of Service (LOS)	Description	Average Control Delay (seconds/vehicle)	
		Signalized Intersection	Unsignalized Intersection
A	Represents free flow. Individual users are virtually unaffected by others in the traffic stream.	≤10.0	≤10.0
B	Stable flow, but the presence of other users in the traffic stream begins to be noticeable	10.1–20.0	10.1–15.0
C	Stable flow, but the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.	20.1–35.0	15.1–25.0
D	Represents high-density, but stable flow.	35.1–55.0	25.1–35.0
E	Represents operating conditions at or near the capacity level.	55.1–80.0	35.1–50.0
F	Represents forced or breakdown flow.	>80.0	>50.0

Source: Highway Capacity Manual (Transportation Research Board 2000).

The existing peak hour traffic volumes, traffic control, and intersection lane configurations (see Figure 3.10-4) were used to calculate LOS at the study intersections. Table 3.10-3 summarizes intersection LOS under existing conditions.

The Schnell School Road/Broadway and Wiltse Road/Broadway intersections were analyzed as a single intersection to most closely reflect their operation in the field. In addition, these intersections were analyzed using the micro-simulation software SimTraffic. These intersections are closely spaced, and the stop-sign controls on Broadway at these intersections influence traffic flow at both intersections. As a result,

analyzing these two intersections separately would produce inaccurate and misleading results. Further, using micro-simulation fully reflects the traffic operational issues that result from the close spacing of these two intersections

**Table 3.10-3. Intersection Delay and Level of Service–Existing Conditions**

Intersection	Type	A.M. Peak Hour		P.M. Peak Hour	
		Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>
1. Point View Dr./U.S. 50 WB Ramps	Side-Street Stop	14	B	11	B
2. Point View Dr./U.S. 50 EB Ramps	Side-Street Stop	9	A	10	A
3. Point View Dr./Broadway	All-Way Stop	9	A	10	A
4. Airport Rd./Broadway	Side-Street Stop	10	A	11	B
5. Schnell School Rd./U.S. 50 WB Ramps	Side-Street Stop	21	C	17	C
6. Schnell School Rd./U.S. 50 EB Ramps	Side-Street Stop	21	C	15	C
7. Schnell School Rd./Broadway <sup>3</sup>	All-Way Stop	6	A	10	A
8. Wiltse Rd./Broadway <sup>3</sup>	Side-Street Stop				
9. Blairs Ln./Broadway	Side-Street Stop	11	B	14	B
10. U.S. 50 EB Ramps/Broadway	Side-Street Stop	37	E	>50	F
11. Mosquito Rd./Broadway	All-Way Stop	18	C	26	D
12. Cedar Ravine Rd./Main St.	All-Way Stop	12	B	17	C
13. Bedford Ave./U.S. 50	Signalized	17	B	26	C
14. Cedar Ravine Rd./Country Club Dr.	All-Way Stop	8	A	9	A
15. Country Club Dr./Barrett Dr.	Side-Street Stop	9	A	9	A

<sup>1</sup> Delay reported in seconds per vehicle; <sup>2</sup> LOS based on Highway Capacity Manual (Transportation Research Board 2000); <sup>3</sup> The Schnell School Road/Broadway and Wiltse Road/Broadway intersections were analyzed as a single intersection to accurately reflect its operation in the field.

Shading indicates that the intersection operates unacceptably based on City or Caltrans standards, as appropriate.

Source: Fehr & Peers 2007.

### Freeway Facilities

Freeway mainline and ramp operations at interchanges (ramp junction merge and diverge) were analyzed using the methodologies contained in Chapters 24 and 25 of the Highway Capacity Manual–Special Report 209. The LOS is based on the density of traffic flow expressed in passenger cars per mile per lane. The density and level of service reported for each ramp junction accounts for operations on the freeway mainline and the ramp.

Table 3.10-4 shows the LSO definitions for merge/diverge on freeway ramps. Table 3.10-5 summarizes the results of the freeway ramp junction analysis for existing conditions.

**Table 3.10-4. Freeway Ramp Junction LOS Criteria**

LOS	Description	Density Range (Passenger Car/ Lane/Mile)
A	Unrestricted operations. Merging and diverging causes virtually no turbulence in traffic stream.	≤10
B	Merging and diverging maneuvers become noticeable to drivers on the freeway mainline, but minimal turbulence occurs. Merging drivers must adjust speed to smoothly transition to freeway.	>10–20
C	Speed begins to decline as turbulence becomes noticeable. Both ramp and freeway mainline drivers begin to adjust speed to accommodate smooth transitions to freeway.	>20–28
D	Turbulence levels become intrusive and virtually all vehicles slow to accommodate merging and diverging. Some queues may form on heavily used on-ramps but freeway mainline operation remains stable.	>28–35
E	Conditions approaching capacity. Speeds reduce significantly, and turbulence is felt by virtually all drivers. Small changes in demand or disruptions within the traffic stream can cause ramp and freeway mainline queues to form.	>35
F	Breakdown in vehicle flow.	Demand exceeds capacity

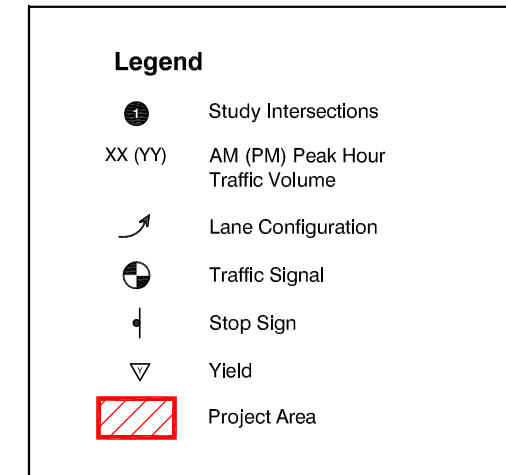
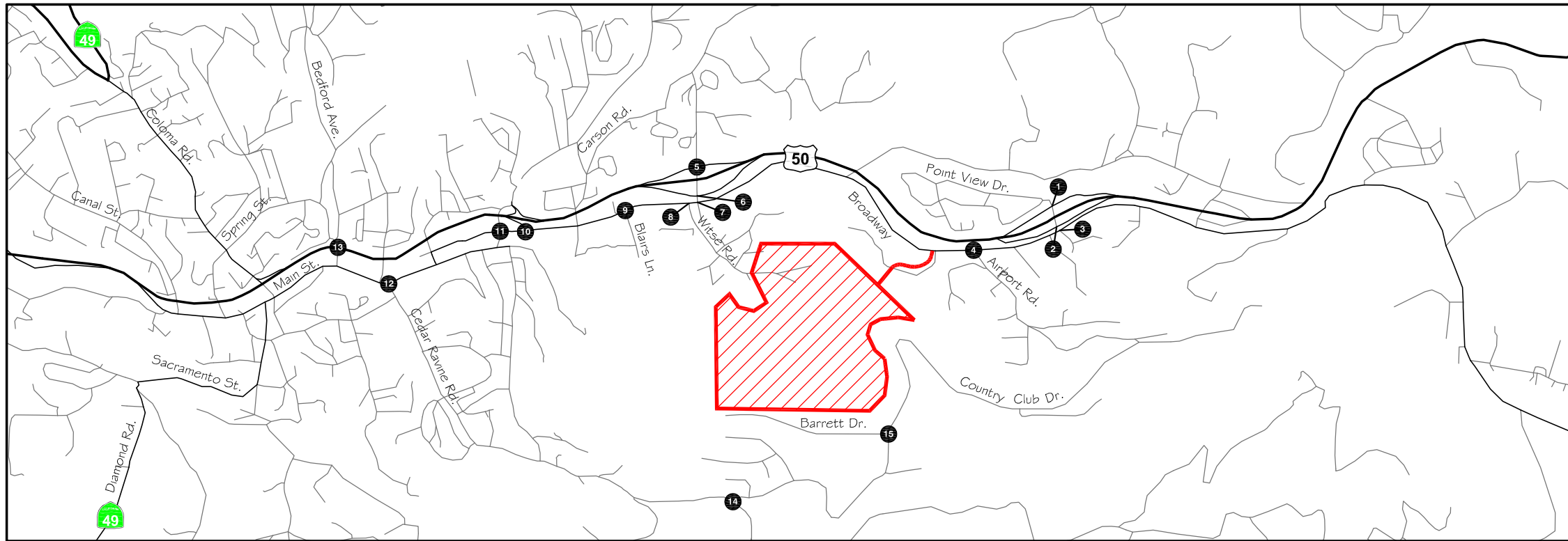
Source: Transportation Research Board 2000.

**Table 3.10-5. Ramp Junction Delay and LOS—Existing Conditions**

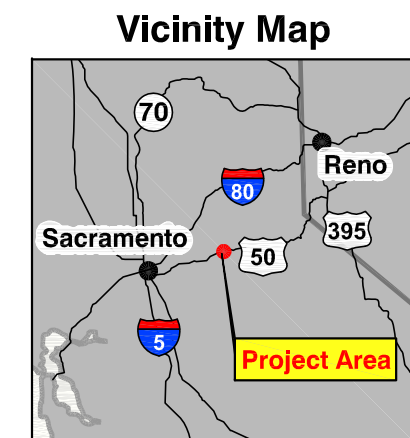
Ramp Junction	Type	A.M. Peak Hour		P.M. Peak Hour	
		Density <sup>1</sup>	LOS <sup>2</sup>	Density <sup>1</sup>	LOS <sup>2</sup>
1. EB Broadway Off-Ramp	Diverge	11.0	B	20.3	C
2. EB Schnell School Road Off-Ramp	Diverge	7.7	A	16.2	B
3. EB Schnell School Road On-Ramp	Merge	6.7	A	14.7	B
4. EB Point View Drive Off-Ramp	Diverge	6.0	A	15.0	B
5. EB Point View Drive On-Ramp	Merge	6.0	A	13.8	B
6. WB Mosquito Road Off-Ramp	Diverge	16.9	B	12.2	B
7. WB Mosquito Road On-Ramp	Merge	17.8	B	14.9	B
8. WB Schnell School Road Off-Ramp	Diverge	14.3	B	9.3	A
9. WB Schnell School Road On-Ramp	Merge	16.5	B	11.9	B
10. WB Point View Drive Off-Ramp	Diverge	12.1	B	8.1	A
11. WB Point View Drive On-Ramp	Merge	14.4	B	10.0	A

<sup>1</sup> Density reported in passenger cars per mile per lane; <sup>2</sup> LOS based on Highway Capacity Manual (Transportation Research Board 2000).

Source: Fehr & Peers 2007.



1. Point View Dr./US 50 WB Ramps	2. Point View Dr./US 50 EB Ramps	3. Point View Dr./Monterey Rd./Broadway	4. Airport Rd./Broadway	5. Schnell School Rd./US 50 WB Ramps
<p>US 50 WB On-Ramp: 29 (16), 2 (20)</p> <p>US 50 WB Off-Ramp: 1 (1), 0 (0), 18 (12)</p> <p>US 50 EB Off-Ramp: 193 (106), 11 (38)</p>	<p>US 50 EB Off-Ramp: 20 (29), 0 (3)</p> <p>US 50 EB On-Ramp: 100 (166)</p> <p>US 50 WB On-Ramp: 199 (126), 13 (46)</p>	<p>Broadway: 24 (81), 18 (151), 0 (4)</p> <p>US 50 WB On-Ramp: 80 (58), 2 (2), 38 (135)</p> <p>US 50 WB Off-Ramp: 186 (87), 72 (68), 2 (1)</p> <p>US 50 EB On-Ramp: 5 (3), 2 (4), 2 (0)</p>	<p>Broadway: 75 (219), 25 (43)</p> <p>US 50 WB On-Ramp: 152 (111), 17 (18)</p> <p>US 50 WB Off-Ramp: 39 (31), 13 (17)</p>	<p>US 50 WB On-Ramp: 164 (96), 105 (97)</p> <p>US 50 WB Off-Ramp: 28 (15), 0 (0), 69 (56)</p> <p>US 50 EB On-Ramp: 121 (186), 217 (185)</p>
6. Schnell School Rd./US 50 EB Ramps	7. Schnell School Rd./Broadway	8. Wiltse Rd./Broadway	9. Blairs Ln./Broadway	10. US 50 EB Ramps/Broadway
<p>US 50 EB Off-Ramp: 157 (136), 17 (17)</p> <p>US 50 EB On-Ramp: 138 (99), 2 (0), 121 (244)</p> <p>US 50 WB On-Ramp: 200 (272), 73 (212)</p>	<p>Broadway: 187 (322), 117 (298), 1 (6)</p> <p>US 50 WB On-Ramp: 196 (170), 3 (10), 79 (200)</p> <p>US 50 WB Off-Ramp: 85 (160), 150 (193), 2 (2)</p> <p>US 50 EB On-Ramp: 0 (1), 1 (2), 0 (2)</p>	<p>Broadway: 286 (588), 10 (26)</p> <p>US 50 WB On-Ramp: 334 (326), 12 (38)</p> <p>US 50 WB Off-Ramp: 18 (21), 19 (38)</p>	<p>Broadway: 13 (19), 231 (565), 24 (30)</p> <p>US 50 WB On-Ramp: 9 (31), 1 (0), 5 (9)</p> <p>US 50 WB Off-Ramp: 10 (15), 254 (301), 9 (14)</p> <p>US 50 EB On-Ramp: 40 (25), 1 (0), 17 (34)</p>	<p>Broadway: 314 (522), 22 (40)</p> <p>US 50 WB On-Ramp: 210 (255), 9 (11), 137 (158)</p> <p>US 50 WB Off-Ramp: 396 (465), 12 (12)</p> <p>US 50 EB On-Ramp: 34 (36), 24 (32)</p>
11. Mosquito Rd./Broadway	12. Cedar Ravine Rd./Main St.	13. Bedford Ave./US 50	14. Cedar Ravine Rd./Country Club Dr.	15. Country Club Dr./Barrett Dr.
<p>Broadway: 3 (10), 3 (14), 4 (4)</p> <p>US 50 WB On-Ramp: 3 (4), 188 (106), 62 (93)</p> <p>US 50 WB Off-Ramp: 324 (439), 28 (9), 288 (308)</p> <p>US 50 EB On-Ramp: 4 (3), 69 (183), 271 (455)</p>	<p>Main St.: 145 (328), 244 (161)</p> <p>US 50 WB On-Ramp: 207 (229), 147 (173)</p> <p>US 50 WB Off-Ramp: 193 (253), 102 (184)</p>	<p>US 50: 17 (46), 762 (1,599), 241 (179)</p> <p>US 50 WB On-Ramp: 43 (81), 56 (55), 91 (120)</p> <p>US 50 WB Off-Ramp: 93 (59), 1,444 (1,192), 46 (27)</p> <p>US 50 EB On-Ramp: 184 (320), 28 (48), 16 (54)</p>	<p>Country Club Dr.: 175 (79), 8 (3)</p> <p>US 50 WB On-Ramp: 43 (188), 21 (69)</p> <p>US 50 WB Off-Ramp: 63 (33), 3 (8)</p>	<p>Barrett Dr.: 0 (4), 13 (7)</p> <p>US 50 WB On-Ramp: 2 (5), 19 (20)</p> <p>US 50 WB Off-Ramp: 8 (6), 15 (18)</p>

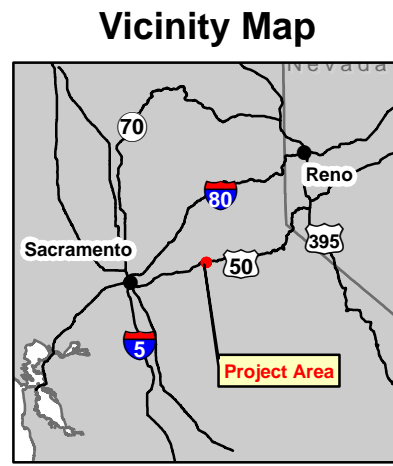
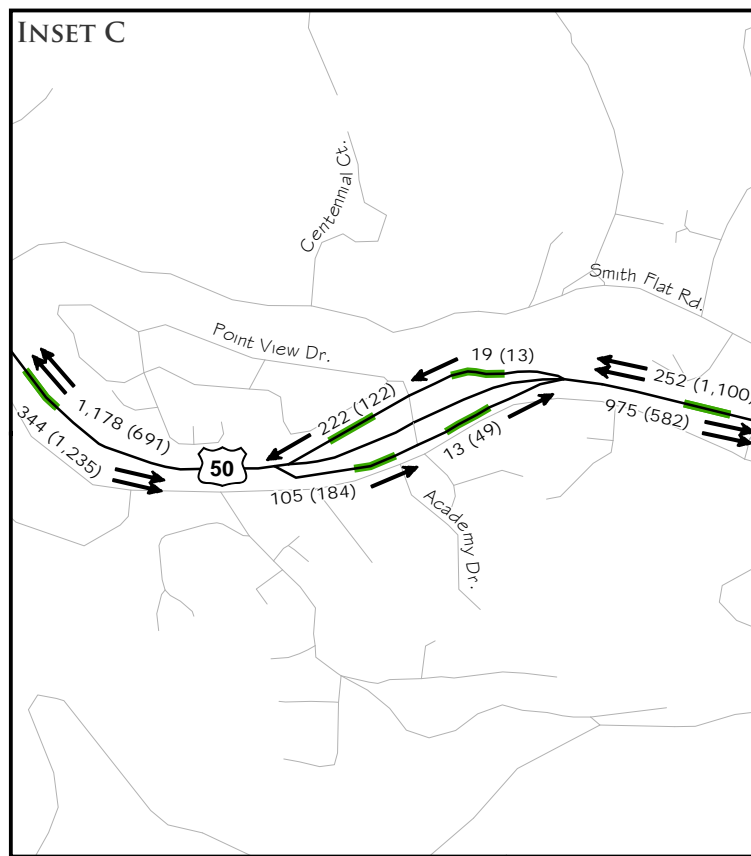
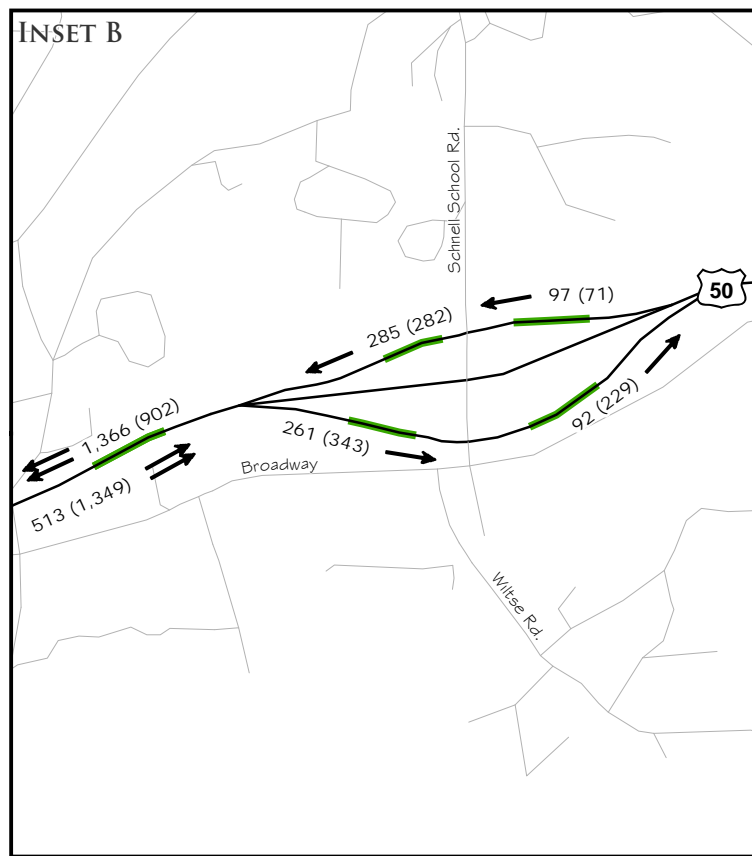
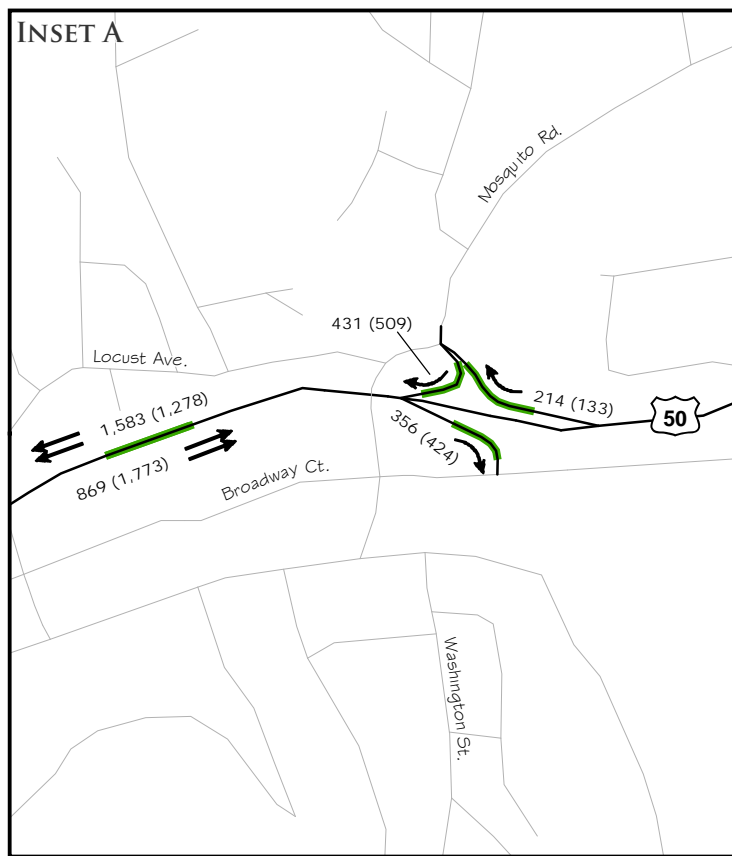
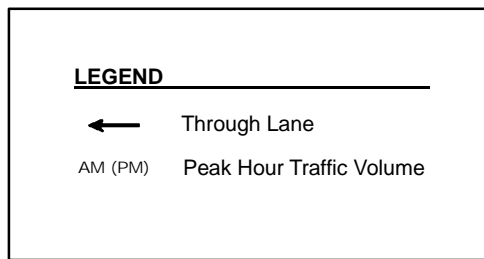
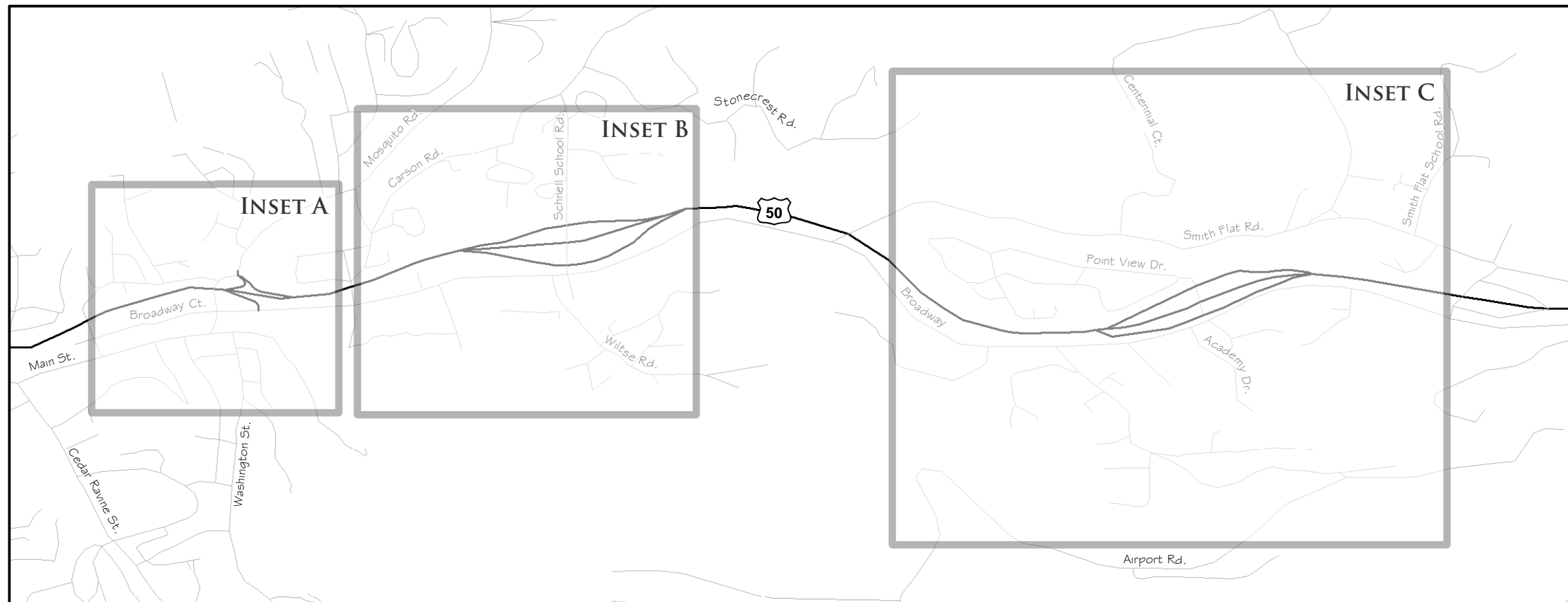


**Figure 3.10-4  
Peak Hour Traffic Volumes  
and Lane Configurations:  
Existing Conditions**









**Figure 3.10-5  
Freeway Peak Hour  
Traffic Volumes and  
Lane Configurations:  
Existing Conditions**

Lumsden Ranch EIR  
City of Placerville



### 3.10.3 Impact Analysis

This section describes the project's impacts and mitigation measures. In addition, this section documents the criteria applied to identify significant impacts and the methods used to analyze the transportation system.

#### Methodology

##### Traffic Operations

Intersections and freeways were analyzed using the methodologies contained in the Highway Capacity Manual—Special Report 209, as described above.

The SimTraffic micro-simulation software was used to analyze traffic operations in the Schnell School Road/Broadway area for the Near Term and Long Term Cumulative analysis scenarios described below. The SimTraffic analysis included the Schnell School Road/Broadway and Wiltse Road/Broadway intersections in all scenarios. The SimTraffic analysis was expanded to include the Schnell School Road/U.S. 50 westbound ramps and Schnell School Road/U.S. 50 eastbound ramps intersections for all mitigation analyses. These intersections are closely spaced, with about 80 feet between Schnell School Road and Wiltse Road and 100 feet between Broadway and the U.S. 50 eastbound ramps. Micro-simulation was needed to accurately analyze traffic operations because traffic flow and congestion at each intersection will influence adjacent intersections due to their close spacing along with future traffic growth.

##### Analysis Scenarios and Forecasts

Project impacts were identified for three analysis scenarios: Existing Plus Project, Near Term, and Long Term Cumulative. These analysis scenarios and the methodologies used to develop the traffic forecasts for them are described below.

##### *Existing Plus Project*

The Existing Plus Project scenario identifies transportation impacts that are directly related to the Lumsden Ranch project. The following steps are used in the Existing Plus Project analysis, which estimates increases in traffic volumes due to the project and the related effects on intersection and freeway traffic operations:

- Estimate the project's vehicle trip generation
- Estimate the project's vehicle trip distribution, and add trips generated by the project to the roadway network
- Analyze the peak hour traffic operations of the study locations with the added project-generated traffic

The trip generation estimate for the Lumsden Ranch project was based on the proposed project land uses (366 single-family dwelling units) and vehicle trip generation rates. Trip generation rates were obtained from Trip Generation, 7th Edition (Institute of Transportation Engineers 2003). It should be noted that the project would replace five existing residences accessed via Wiltse Road; therefore, the project would result in a net

increase of only 361 dwelling units. However, the trip generation used to identify transportation impacts included 366 dwelling units to provide a conservative analysis. Table 3.10-6 displays the estimated daily, a.m. peak hour, and p.m. peak hour trip generation for the project. The project would generate 3,504 daily trips, with 275 occurring during the a.m. peak hour and 369 occurring during the p.m. peak hour.

**Table 3.10-6. Estimated Project Trip Generation**

	Rate <sup>1</sup>	Total	In	Out
Daily Trips	9.57	3,503	1,751	1,751
AM Peak Hour	.75	275	69	206
PM Peak Hour	1.01	370	233	137

<sup>1</sup> Trip generation rate from Trip Generation, 7th Edition, Land Use 210 (Institute of Transportation Engineers 2003).

Source: Fehr & Peers 2007.

The project-generated trips in Table 3.10-6 were distributed and assigned to the existing roadway network. Figure 3.10-6 shows the project trip distribution, which was estimated based on complementary land uses and travel patterns in the study area. The travel pattern information was determined from the El Dorado County General Plan travel demand forecasting (TDF) model, as enhanced during the Placerville Traffic Mitigation Fee update. Figure 3.10-7 shows the resulting traffic volumes for Existing Plus Project conditions at the study intersections. Figure 3.10-8 shows the Existing Plus Project traffic volumes at the study freeway facilities.

### *Near Term*

The Near Term scenario was analyzed to respond to comments received during the scoping period from Caltrans. This scenario is not required under CEQA, but it was included to provide information to the public and decision makers regarding the near-term mitigation measures that would be needed upon occupancy of the project. Caltrans requested analysis of only the Schnell School Road interchange area as part of the Near Term analysis. Therefore, this scenario consists of a reduced study area including the following facilities:

- Schnell School Road/U.S. 50 westbound ramps
- Schnell School Road/U.S. 50 eastbound ramps
- Schnell School Road/Broadway
- Wiltse Road/Broadway
- Canyon View Drive/Broadway
- U.S. 50/Schnell School Road interchange (ramp merge and diverge)

The Near Term scenario provides a near-term assessment of transportation conditions that consider development of the project in addition to other approved and/or pending projects within Placerville. This scenario ensures that needed near-term improvements are identified based on a realistic estimate of traffic levels at project occupancy.

Near Term forecasts were developed by adding traffic generated by projects in Placerville that are approved and/or pending to existing traffic counts. Pending projects

were defined as those projects that have an active development application submitted to the City. Tables 3.10-7 and 3.10-8 list the approved and pending projects that were included in the analysis. Figure 3.10-9 shows the resulting Near Term No Project traffic volume forecasts at the study facilities. Figure 3.10-10 shows the resulting Near Term Plus Project traffic volume forecast forecasts.

**Table 3.10-7. Current Approved or Pending Commercial Projects**

Project Name	Location	Use
EID Headquarters Phases 2 & 3	2890 Mosquito Rd. APN 002L060:07, 09,11; 002:012:40	Phase 2: 15,800-sf office addition (under construction) Phase 3: 11,900-sf shop/maintenance building
Placerville Heights	2808 Mallard Lane APN 325:120:80	Two office buildings of 1,925 sf and 3,200 sf (under construction)
Fausel Professional Building	Main Street at Pacific St. APN 003-071-31, 003-071-39, 003-071-45, 003-071-55, 003-071-56, 003-071-58	19,400-sf office building (under construction)
Briw Commercial	3047 Briw Rd., near Forni Rd. APN 325-310-26	Three 5,600-sf one-story office buildings (under construction)
Toad Hall	971 Spring Street APN 001-072-03	Three-level, 10,130-sf mixed use (office/residential), 3 residential units, three general office units
Gateway Hotel	Northeast quadrant of Point View Drive and Highway 50 interchange APN 048-290-29, 048-290-30, 048-290-32, and 049-110-29, 049-110-31	102-room hotel with convention/meeting facilities, gas station with 9,240-sf convenience store with attached carwash (under construction)

**Table 3.10-8. Current Approved/Tentative Subdivisions**

Project Name	Location	Units	Type
Astonia (Placerville Estates)	East Airport Rd./South of Broadway and Texerna Rd.	39	Single-family residence
Eskaton/Spanish Hill	Blairs Ln./West of Wiltse Rd./Lumsden Park	113	Senior Community
The Ridge at Orchard Hill	West of Mallard Lane	156	Senior Community
Cottonwood Park Phases	North of Clay St. and Constellation Ave.	39	Single-family residence
Quartz Mountain	W. Bedford Ave., end of Quartz Mtn. Dr.	26	Single-family residence
Placerville Heritage Homes	Off Ray Lawyer Dr. APN 325-400-20	20	Single-family residence
Cedar Bluffs Phases II & III	E. Cedar Ravine/W. Barrett Dr.	58	Single-family residence
Country Club Court	S. Country Club Dr. APN 051-520-11	10	Single-family residence
Stancil Property	Forni Rd. SW of Office Max APN 325-310-62	34	Single-family residence

### *Long Term Cumulative*

The analysis of long-term cumulative conditions provides a context for identifying the potential effects of the project in the future. The long-term cumulative conditions analysis assumes land use growth and expected roadway network improvements through 2025.

Long-term cumulative traffic forecasts were developed for each study facility based on the El Dorado County General Plan TDF model, as enhanced during the Placerville Traffic Mitigation Fee update. The TDF model provides the most current information regarding future land use, roadway network, and travel demand within Placerville and El Dorado County. The resulting forecasts assumed construction of fully funded roadway improvements within the City and County. In addition, they included traffic generated by approved and reasonably foreseeable pending projects such as Eskaton at Spanish Hill and Cedar Bluffs. Traffic generated by the Lumsden Ranch project was added to the surrounding roadway network in accordance with the trip generation shown in Table 3.10-6 and the trip distribution shown in Figure 3.10-6.

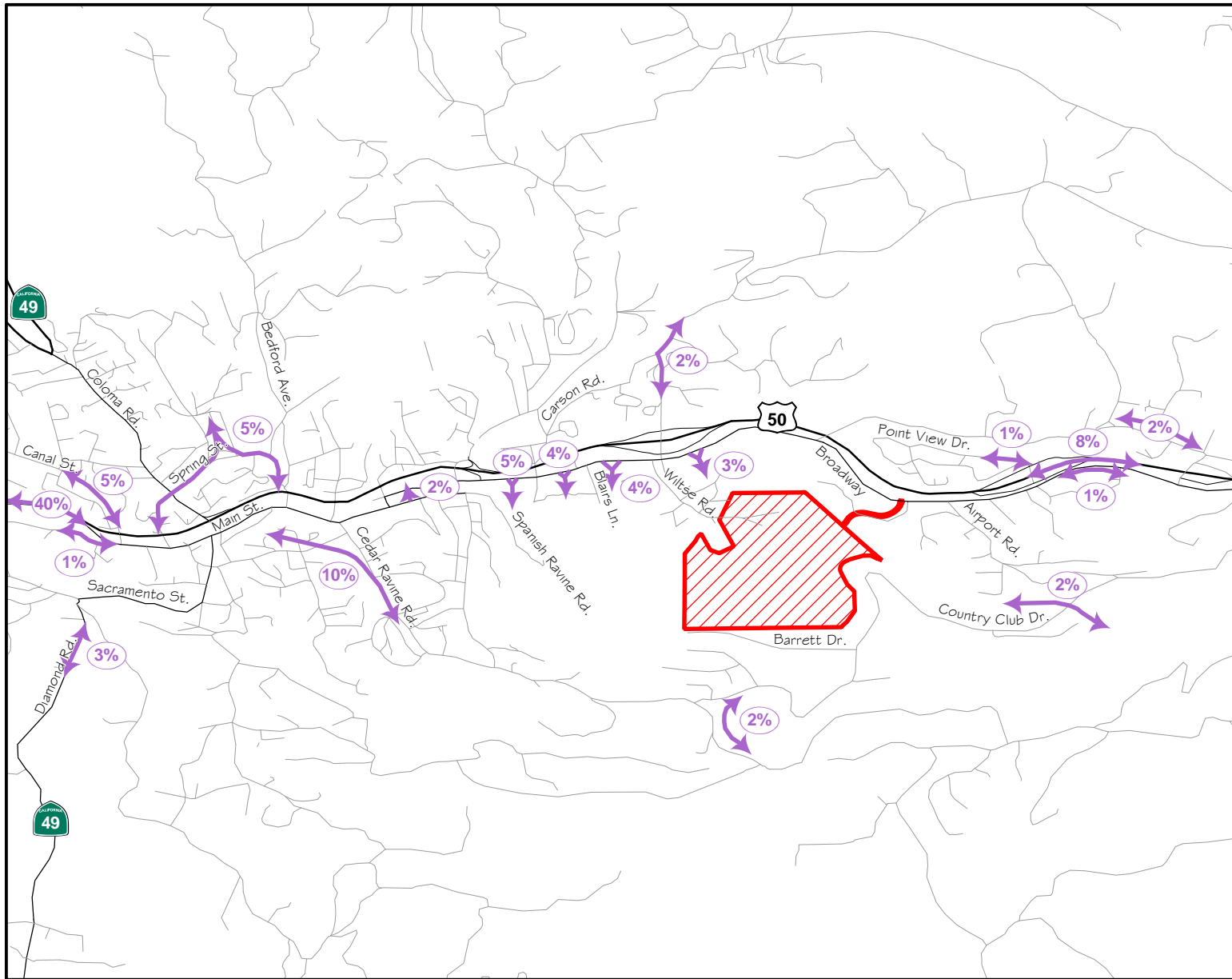
Table 3.10-9 shows the roadway network improvements assumed, and Table 3.10-10 compares total long term cumulative land use to current levels within Placerville (excluding the Lumsden Ranch project). Figure 3.10-11 and Figure 3.10-12 show the resulting Long Term Cumulative No Project traffic forecasts at the study facilities. Figure 3.10-13 and Figure 3.10-14 show the resulting Long Term Cumulative Plus Project traffic volume forecasts.

**Table 3.10-9. Roadway Network Improvements Assumed in Cumulative Analysis**

Roadway/Intersection	Improvement(s)
W. Placerville Drive	Extended to Main Street Added U.S. 50 eastbound on-ramp Added U.S. 50 westbound off-ramp Removed U.S. 50 eastbound off-ramp
U.S. 50 eastbound	Added third lane between Placerville Drive and Clay Street
Barrett Road	Extended to Cedar Ravine Road
Missouri Flat Road	Added connection to Pleasant Valley Road
U.S. 50/Bedford Avenue intersection	Added lane improvements
Point View Drive	Extended to Smith Flat Road/Jacquier Road

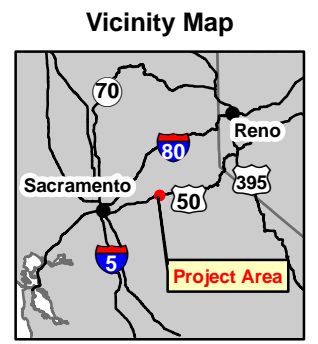
**Table 3.10-10. Placerville Land Use Comparison**

	Base Year Model (2005)	Cumulative Year Model (2025)
Total Dwelling Units	8,172	11,131
Total Jobs	12,183	18,862



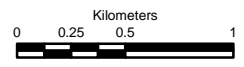
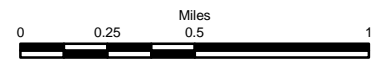
**Legend**

- Project Trip Distribution
- Project Area



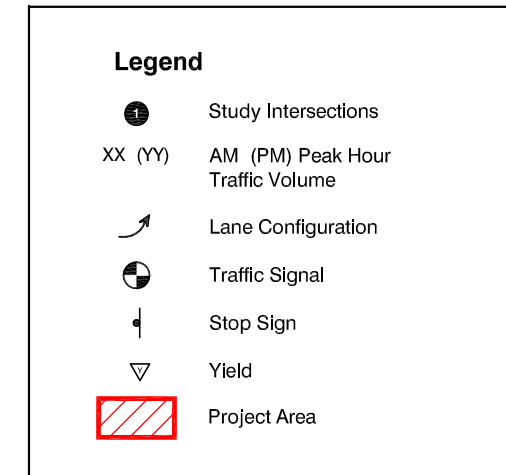
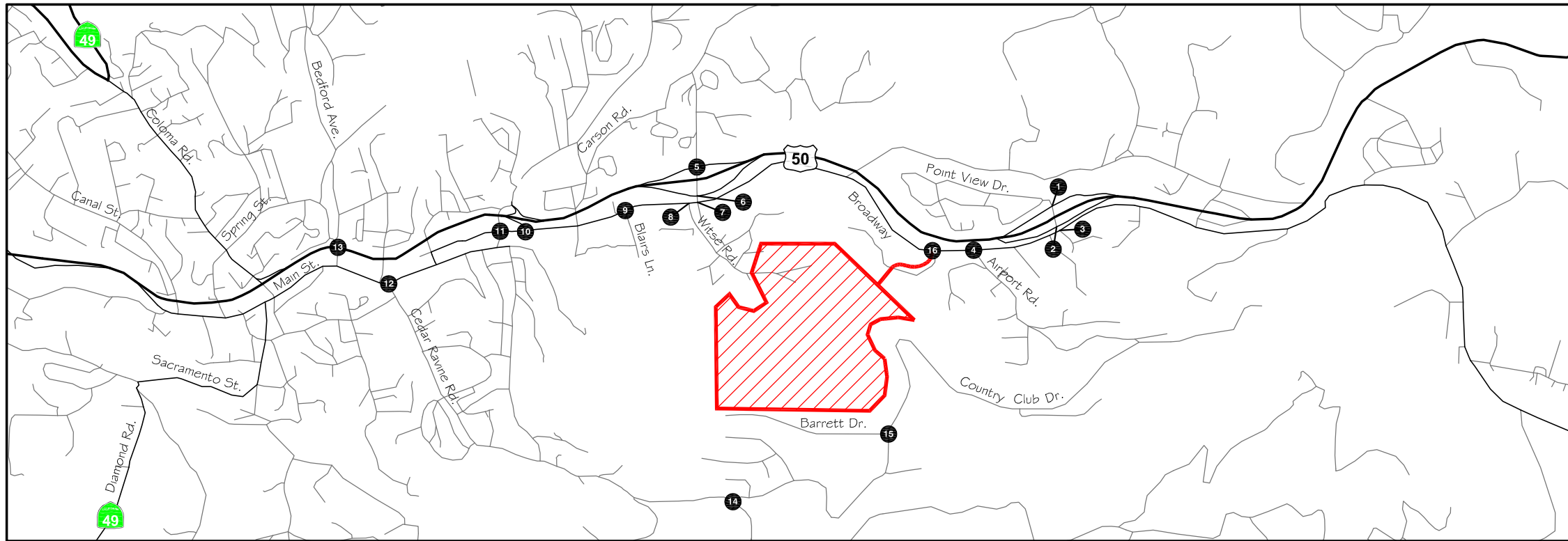
**Figure 3.10-6  
Project Trip  
Distribution**

Lumsden Ranch EIR  
City of Placerville

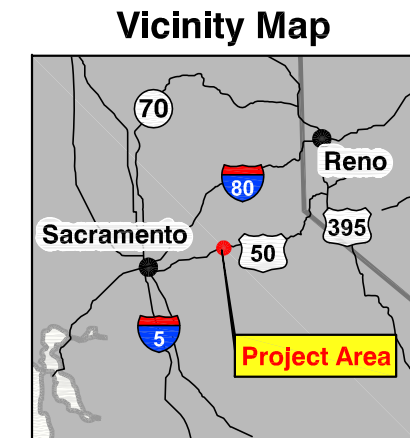








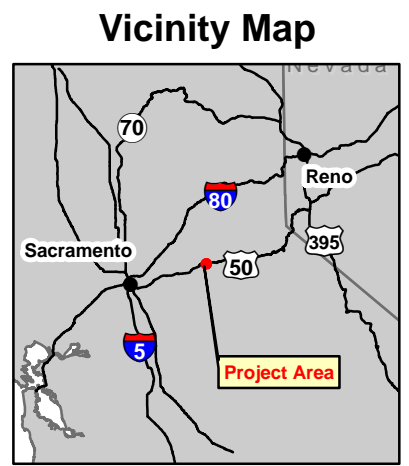
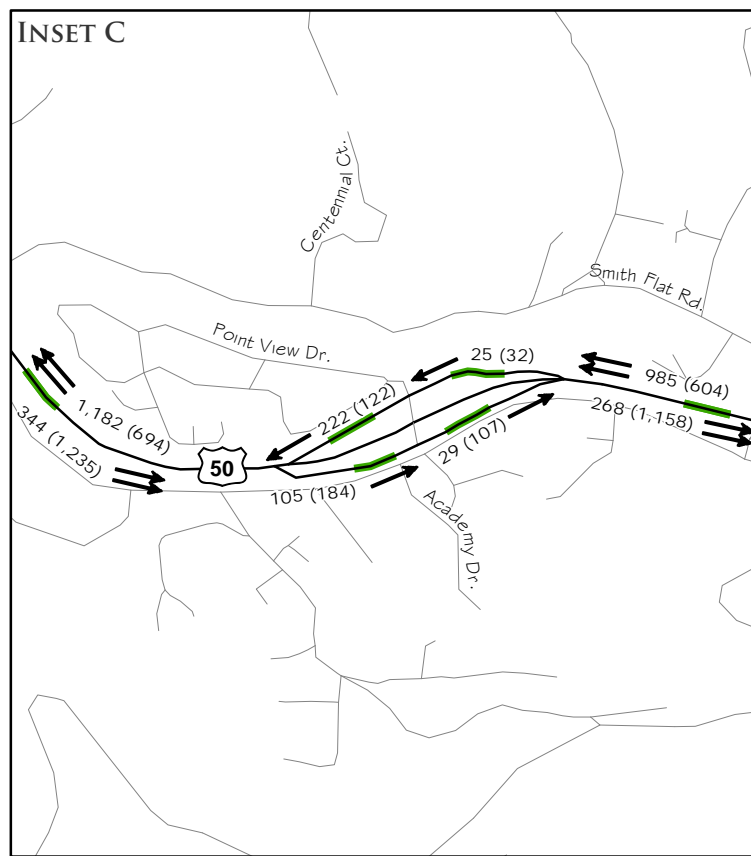
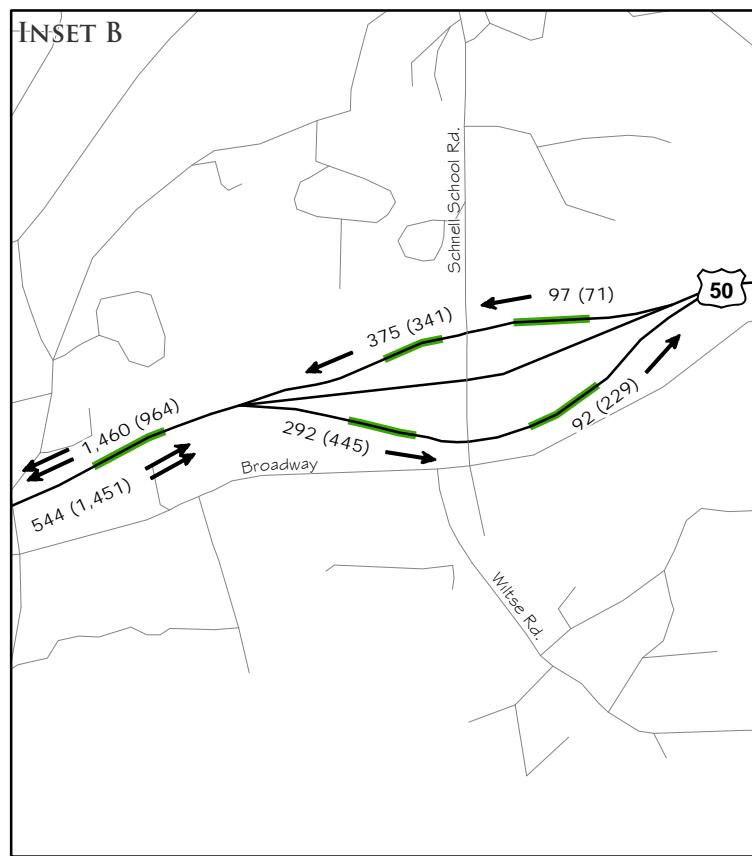
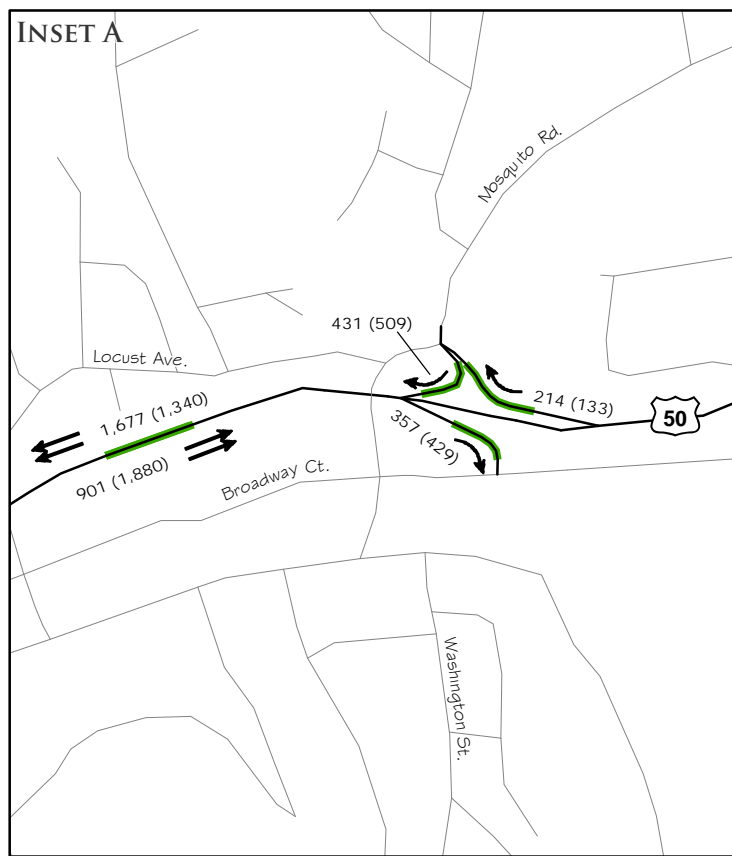
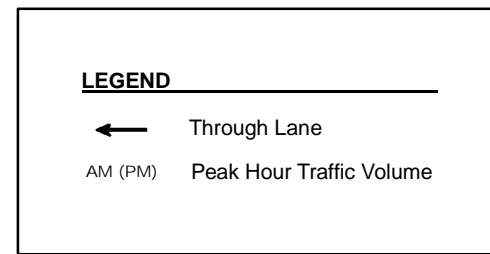
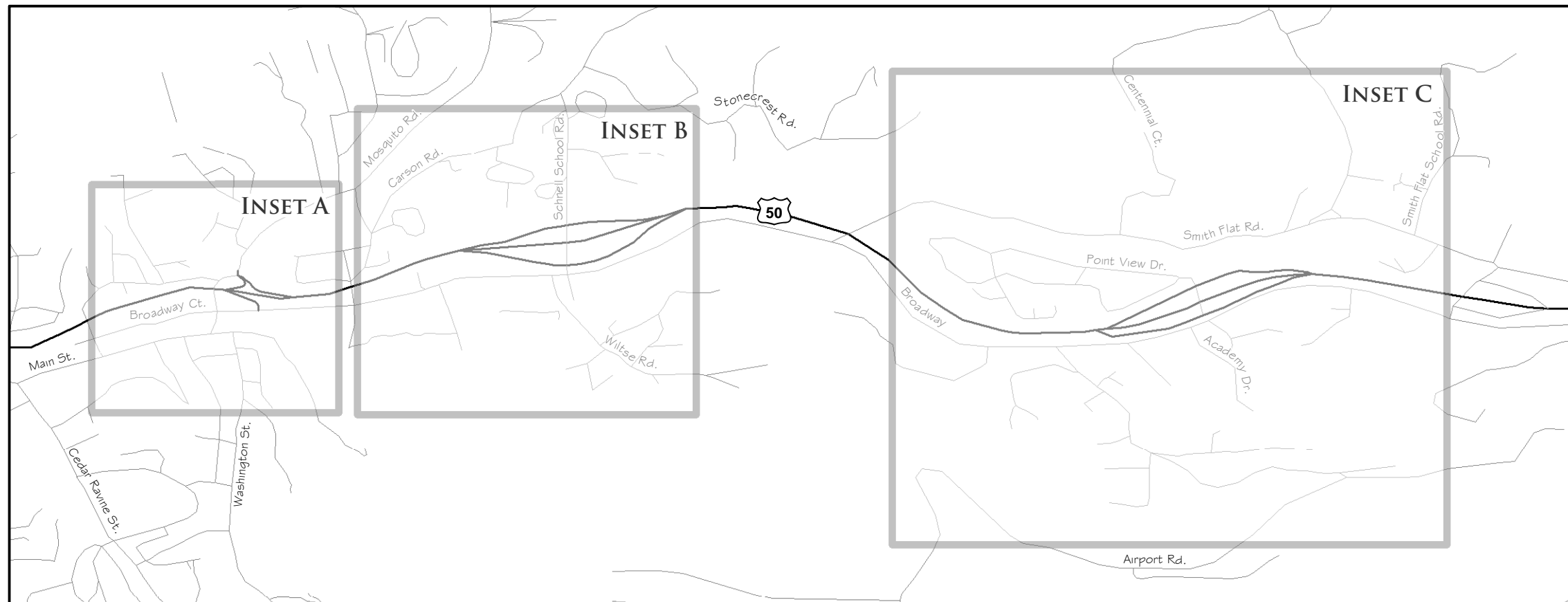
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US 50 WB On-Ramp: 29 (16) US 50 WB Off-Ramp: 3 (22)	US 50 EB Off-Ramp: 27 (50) US 50 EB On-Ramp: 0 (3)	Broadway: 87 (79) US 50 WB On-Ramp: 2 (2) US 50 WB Off-Ramp: 38 (135)	Broadway: 159 (135) Airport Rd.: 18 (22)	US 50 WB On-Ramp: 164 (96) US 50 WB Off-Ramp: 106 (102)	
US 50 WB On-Ramp: 42 (93) US 50 WB Off-Ramp: 24 (155) US 50 WB On-Ramp: 0 (4)	US 50 EB Off-Ramp: 5 (18) US 50 EB On-Ramp: 0 (0) US 50 EB On-Ramp: 100 (166)	Broadway: 42 (93) US 50 WB On-Ramp: 5 (3) US 50 WB Off-Ramp: 2 (4) US 50 WB On-Ramp: 2 (0)	Broadway: 96 (233) Airport Rd.: 29 (46)	US 50 WB On-Ramp: 28 (15) US 50 WB Off-Ramp: 0 (0) US 50 WB Off-Ramp: 69 (56)	
6. Schnell School Rd./US 50 EB Ramps	7. Schnell School Rd./Broadway	8. Wiltse Rd./Broadway	9. Blairs Ln./Broadway	10. US 50 EB Ramps/Broadway	
US 50 EB Off-Ramp: 158 (141) US 50 EB On-Ramp: 17 (17)	Broadway: 196 (170) US 50 EB Off-Ramp: 3 (10) US 50 EB On-Ramp: 111 (307)	Broadway: 389 (362) Wiltse Rd.: 12 (38)	Broadway: 9 (31) Blairs Ln.: 1 (0) Blairs Ln.: 5 (9)	US 50 EB Off-Ramp: 210 (255) US 50 EB On-Ramp: 9 (11) US 50 EB On-Ramp: 138 (163)	
US 50 EB Off-Ramp: 138 (99) US 50 EB On-Ramp: 2 (0) US 50 EB On-Ramp: 152 (346)	Broadway: 187 (322) US 50 EB Off-Ramp: 136 (361) US 50 EB On-Ramp: 1 (6)	Broadway: 305 (651) Wiltse Rd.: 10 (26)	Broadway: 13 (19) Blairs Ln.: 249 (620) Blairs Ln.: 24 (30)	US 50 EB Off-Ramp: 429 (491) US 50 EB On-Ramp: 12 (12)	
US 50 EB Off-Ramp: 294 (334) US 50 EB On-Ramp: 73 (212)	Broadway: 0 (1) US 50 EB Off-Ramp: 1 (2) US 50 EB On-Ramp: 0 (2)	Broadway: 18 (21) Wiltse Rd.: 19 (38)	Broadway: 40 (25) Blairs Ln.: 1 (0) Blairs Ln.: 17 (34)	US 50 EB Off-Ramp: 34 (36) US 50 EB On-Ramp: 24 (32)	
11. Mosquito Rd./Broadway	12. Cedar Ravine Rd./Main St.	13. Bedford Ave./US 50	14. Cedar Ravine Rd./Country Club Dr.	15. Country Club Dr./Barrett Dr.	16. Canyon View Dr./Broadway
Broadway: 3 (4) Mosquito Rd.: 188 (106) Mosquito Rd.: 62 (93)	Main St.: 231 (245) Cedar Ravine Rd.: 149 (179)	US 50: 43 (81) Bedford Ave.: 59 (57) Bedford Ave.: 94 (130)	Country Club Dr.: 43 (188) Cedar Ravine Rd.: 27 (90)	Country Club Dr.: 4 (12) Barrett Dr.: 21 (21)	Broadway: 152 (111) Canyon View Dr.: 9 (29)
Broadway: 3 (10) Mosquito Rd.: 3 (14) Mosquito Rd.: 4 (4)	Main St.: 153 (356) Cedar Ravine Rd.: 248 (175)	US 50: 17 (46) Bedford Ave.: 791 (1,696) Bedford Ave.: 242 (184)	Country Club Dr.: 175 (79) Cedar Ravine Rd.: 9 (8)	Barrett Dr.: 6 (8) Country Club Dr.: 33 (20)	Broadway: 75 (219) Canyon View Dr.: 53 (176)
Broadway: 328 (442) Mosquito Rd.: 28 (9) Mosquito Rd.: 317 (331)	Main St.: 206 (261) Cedar Ravine Rd.: 107 (187)	US 50: 188 (323) Bedford Ave.: 30 (49) Bedford Ave.: 16 (54)	Country Club Dr.: 81 (45) Cedar Ravine Rd.: 7 (11)	Barrett Dr.: 15 (29) Country Club Dr.: 16 (20)	Broadway: 154 (101) Canyon View Dr.: 25 (16)



**Figure 3.10-7  
Peak Hour Traffic Volumes  
and Lane Configurations:  
Existing Plus Project  
Conditions**





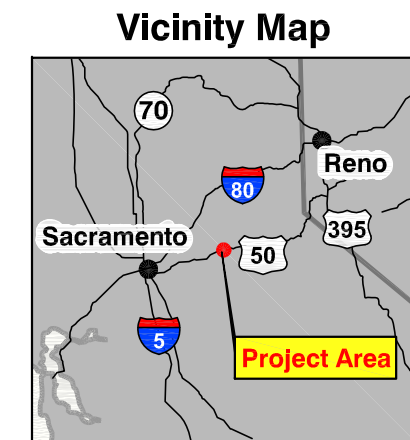
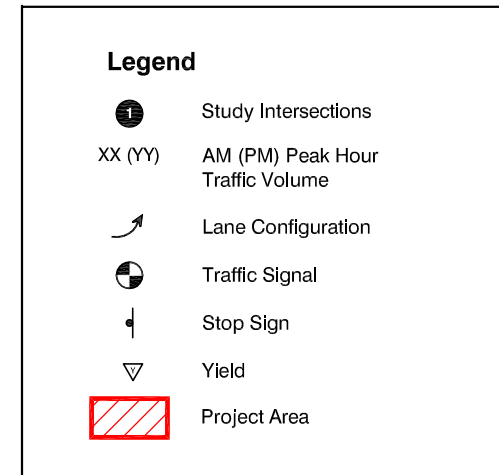
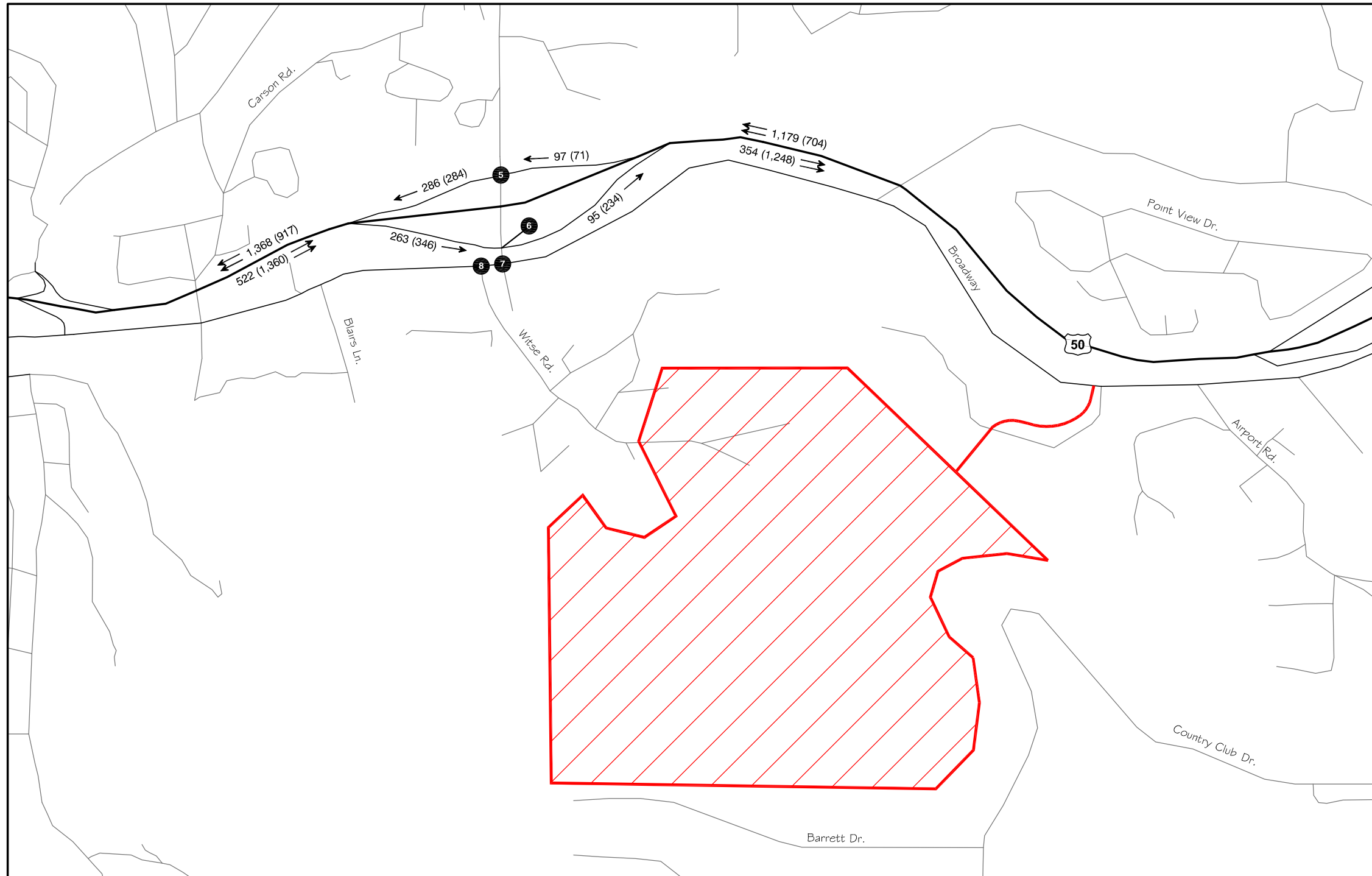


**Figure 3.10-8  
Freeway Peak Hour  
Traffic Volumes and  
Lane Configurations:  
Existing Plus Project  
Conditions**

Lumsden Ranch EIR  
City of Placerville





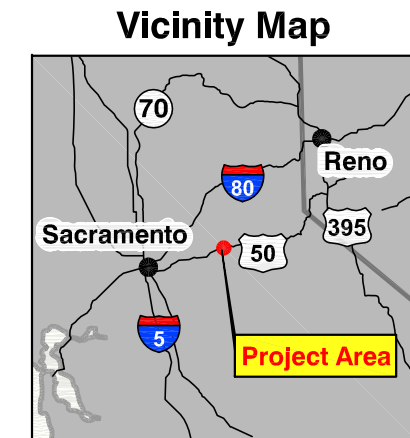
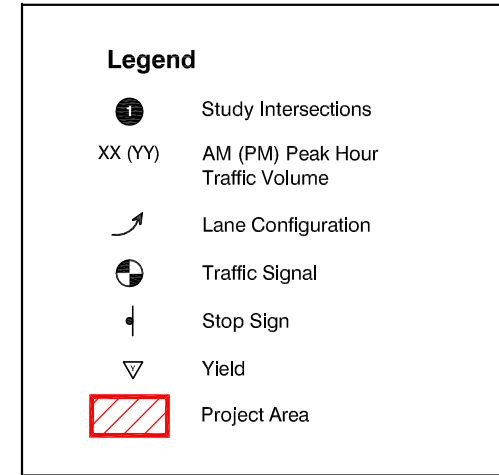
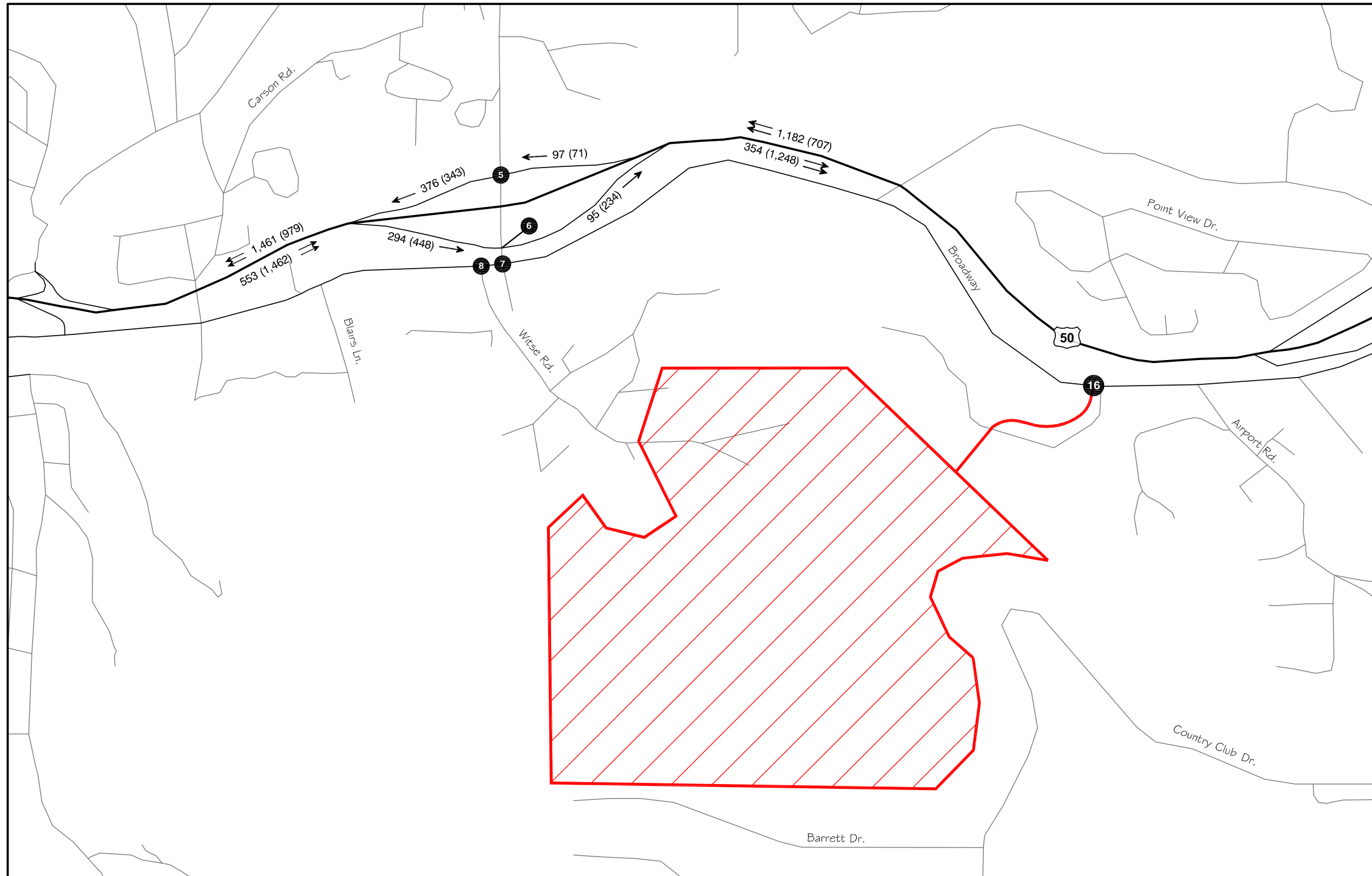


5. Schnell School Rd./US 50 WB Ramps	6. Schnell School Rd./US 50 EB Ramps	7. Schnell School Rd./Broadway	8. Wiltse Rd./Broadway

**Figure 3.10-9  
Peak Hour Traffic Volumes  
and Lane Configurations:  
Near Term  
No Project Conditions**







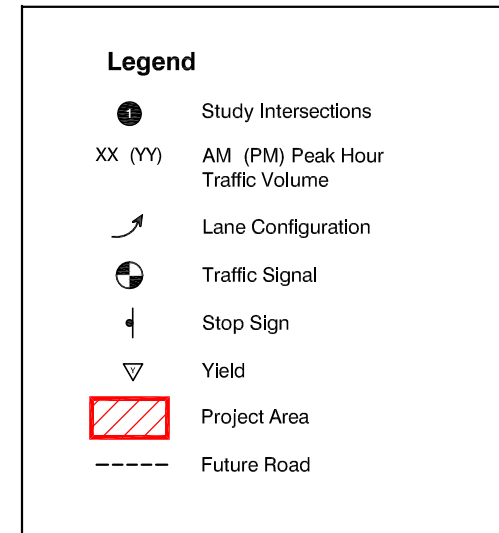
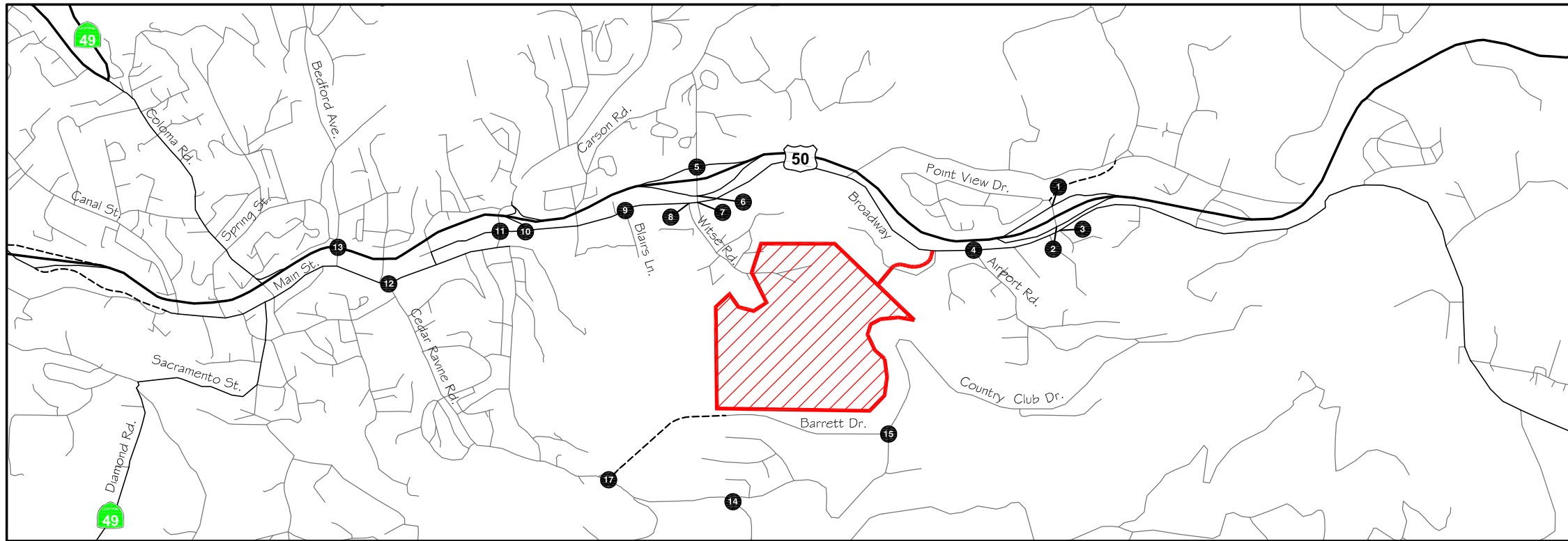
5. Schnell School Rd./US 50 WB Ramps	6. Schnell School Rd./US 50 EB Ramps	7. Schnell School Rd./Broadway	8. Wiltse Rd./Broadway	16. Canyon View Dr./Broadway

**Figure 3.10-10  
Peak Hour Traffic Volumes  
and Lane Configurations:  
Near Term  
Plus Project Conditions**

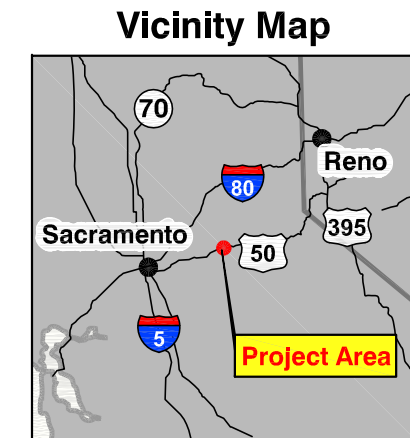








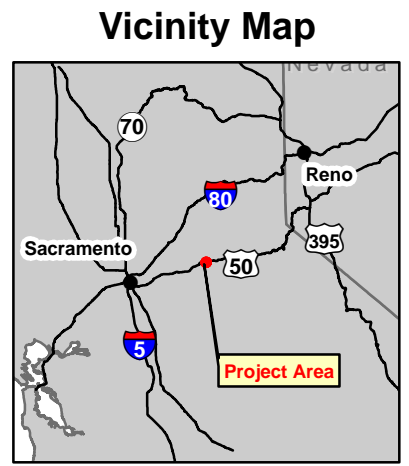
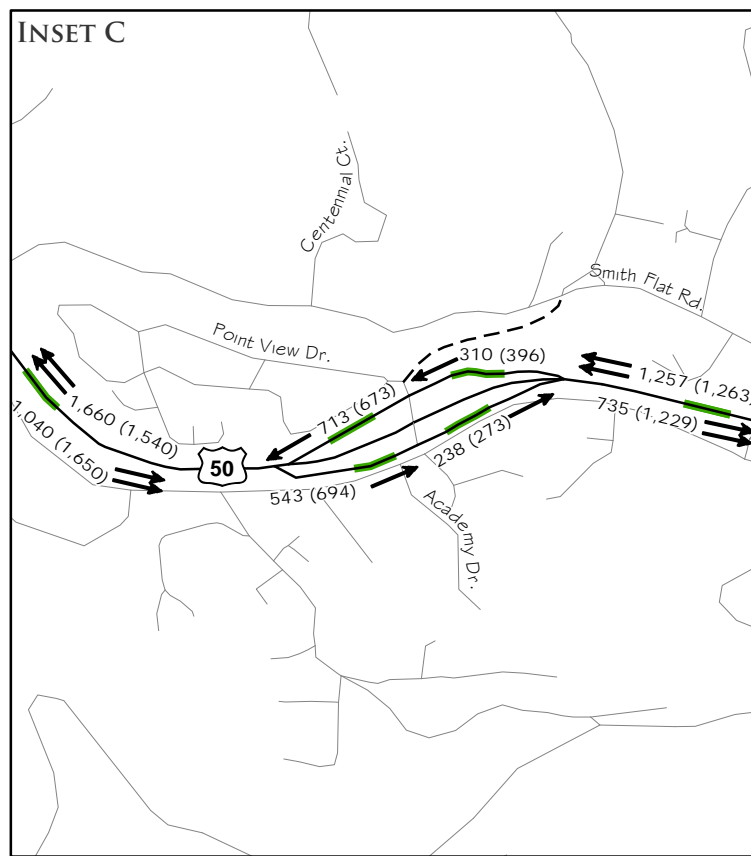
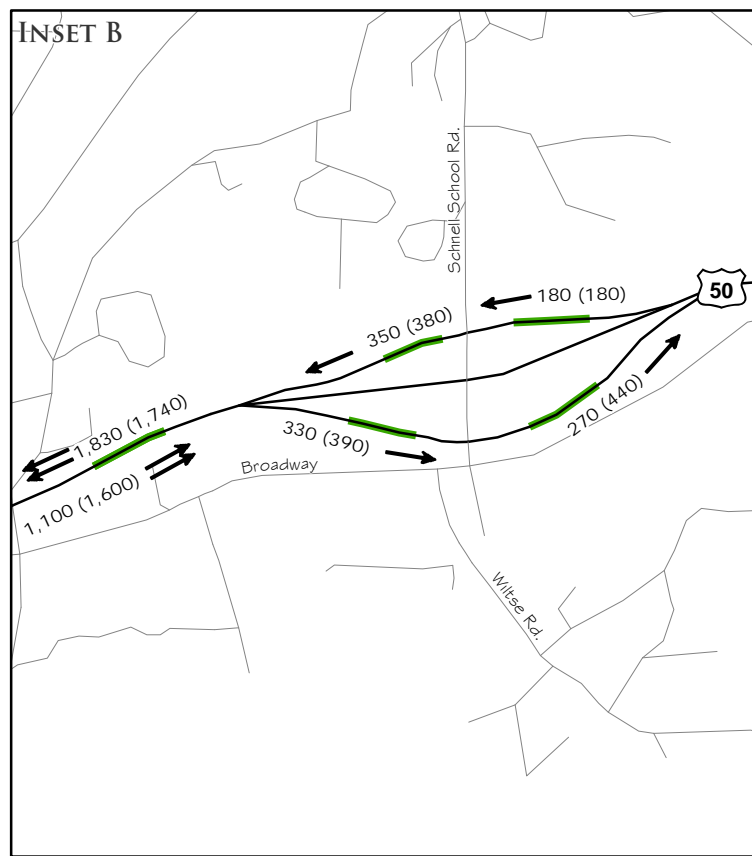
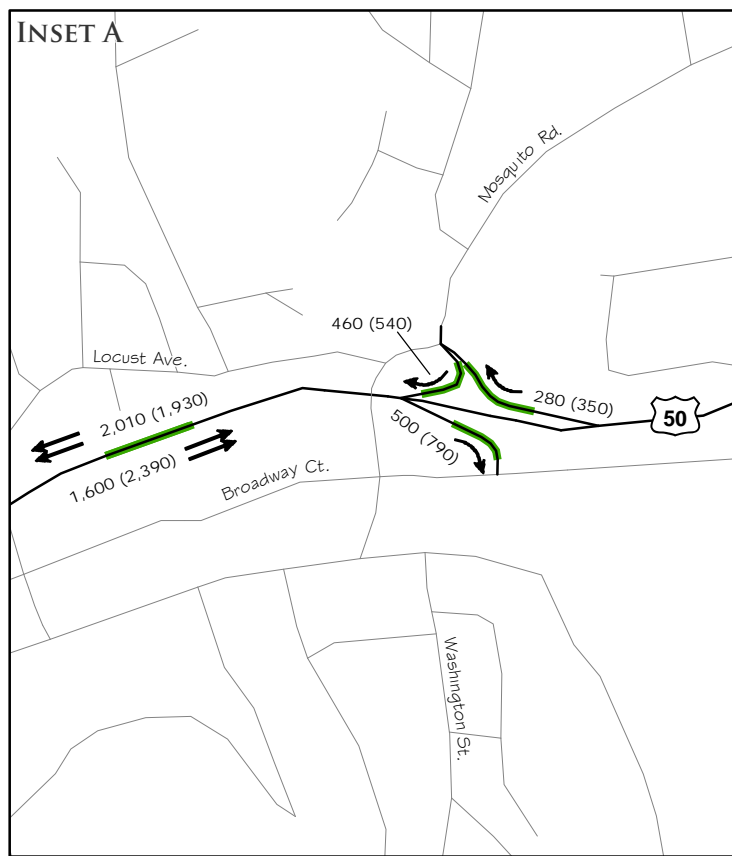
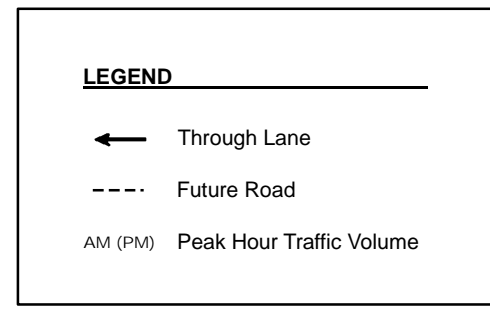
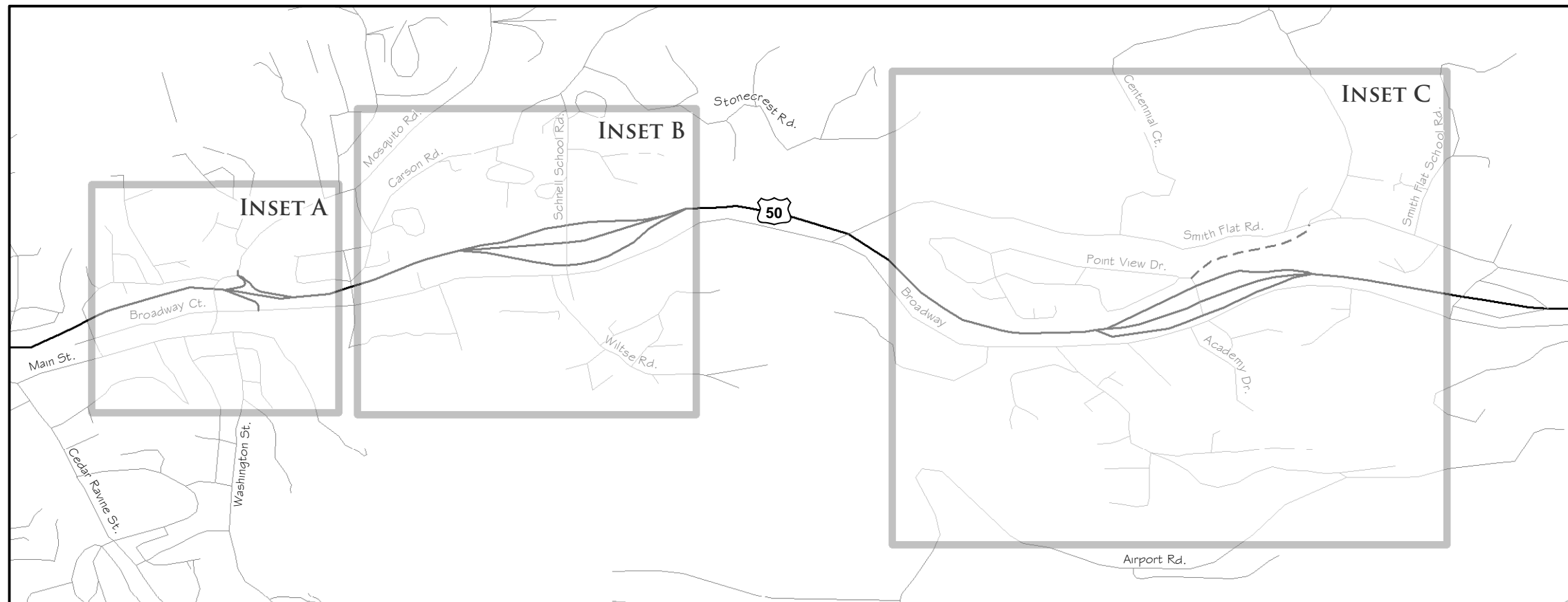
1. Point View Dr./US 50 WB Ramps	2. Point View Dr./US 50 EB Ramps	3. Point View Dr./Monterey Rd./Broadway	4. Airport Rd./Broadway	5. Schnell School Rd./US 50 WB Ramps	
<p>313 (403) 259 (286)</p> <p>260 (246) 10 (10) 40 (30)</p> <p>US 50 WB On-Ramp</p> <p>US 50 WB Off-Ramp</p> <p>390 (260) 352 (470)</p>	<p>102 (141) 198 (193)</p> <p>US 50 EB Off-Ramp</p> <p>US 50 EB On-Ramp</p> <p>283 (294) 10 (10) 250 (390)</p> <p>460 (337) 30 (70)</p>	<p>221 (237) 10 (10) 121 (267)</p> <p>300 (158) 80 (80) 10 (10)</p> <p>Broadway</p> <p>180 (238) 40 (160) 10 (10)</p> <p>10 (10) 10 (10) 10 (10)</p>	<p>160 (120) 130 (190)</p> <p>Broadway</p> <p>80 (230) 30 (50)</p> <p>40 (40) 130 (160)</p>	<p>170 (100) 200 (170)</p> <p>70 (90) 10 (10) 100 (80)</p> <p>US 50 WB On-Ramp</p> <p>US 50 WB Off-Ramp</p> <p>170 (270) 240 (200)</p>	
6. Schnell School Rd./US 50 EB Ramps	7. Schnell School Rd./Broadway	8. Wiltse Rd./Broadway	9. Blairs Ln./Broadway	10. US 50 EB Ramps/Broadway	
<p>210 (180) 90 (70)</p> <p>US 50 EB Off-Ramp</p> <p>US 50 EB On-Ramp</p> <p>140 (100) 10 (10) 180 (280)</p> <p>270 (370) 170 (360)</p>	<p>240 (200) 10 (10) 140 (250)</p> <p>140 (250) 190 (220) 10 (10)</p> <p>Broadway</p> <p>290 (470) 140 (330) 10 (10)</p> <p>10 (10) 10 (10) 10 (10)</p>	<p>420 (390) 20 (40)</p> <p>Broadway</p> <p>420 (770) 20 (30)</p> <p>20 (30) 20 (40)</p>	<p>10 (30) 10 (10) 10 (10)</p> <p>10 (20) 420 (380) 10 (20)</p> <p>Broadway</p> <p>10 (20) 400 (750) 50 (80)</p> <p>100 (60) 10 (10) 30 (40)</p>	<p>290 (260) 10 (10) 200 (520)</p> <p>400 (520) 10 (10)</p> <p>Broadway</p> <p>350 (650) 20 (40)</p> <p>40 (40) 30 (30)</p>	
11. Mosquito Rd./Broadway	12. Cedar Ravine Rd./Main St.	13. Bedford Ave./US 50	14. Cedar Ravine Rd./Country Club Dr.	15. Country Club Dr./Barrett Dr.	17. Barrett Dr./Cedar Ravine Rd.
<p>10 (10) 190 (110) 80 (210)</p> <p>340 (500) 40 (10) 350 (310)</p> <p>Broadway</p> <p>10 (20) 10 (20) 10 (10)</p> <p>10 (10) 120 (190) 280 (460)</p>	<p>350 (490) 150 (180)</p> <p>Main St.</p> <p>240 (350) 250 (320)</p> <p>390 (260) 110 (190)</p>	<p>140 (70) 90 (60) 160 (130)</p> <p>300 (240) 1,540 (1,600) 170 (90)</p> <p>US 50</p> <p>70 (150) 1,430 (2,170) 270 (340)</p> <p>320 (330) 110 (60) 70 (90)</p>	<p>100 (250) 30 (70)</p> <p>Cedar Ravine Rd.</p> <p>70 (40) 10 (10)</p> <p>Country Club Dr.</p> <p>260 (200) 10 (10)</p>	<p>10 (10) 20 (30)</p> <p>Barrett Dr.</p> <p>10 (20) 20 (10)</p> <p>10 (10) 30 (30)</p>	<p>10 (10) 10 (10)</p> <p>Cedar Ravine Rd.</p> <p>10 (10) 180 (410)</p> <p>10 (10) 400 (300)</p>



**Figure 3.10-11  
Peak Hour Traffic Volumes  
and Lane Configurations:  
Long Term Cumulative  
No Project Conditions**





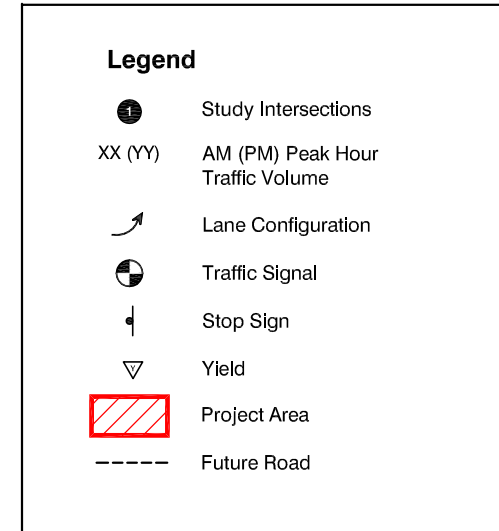
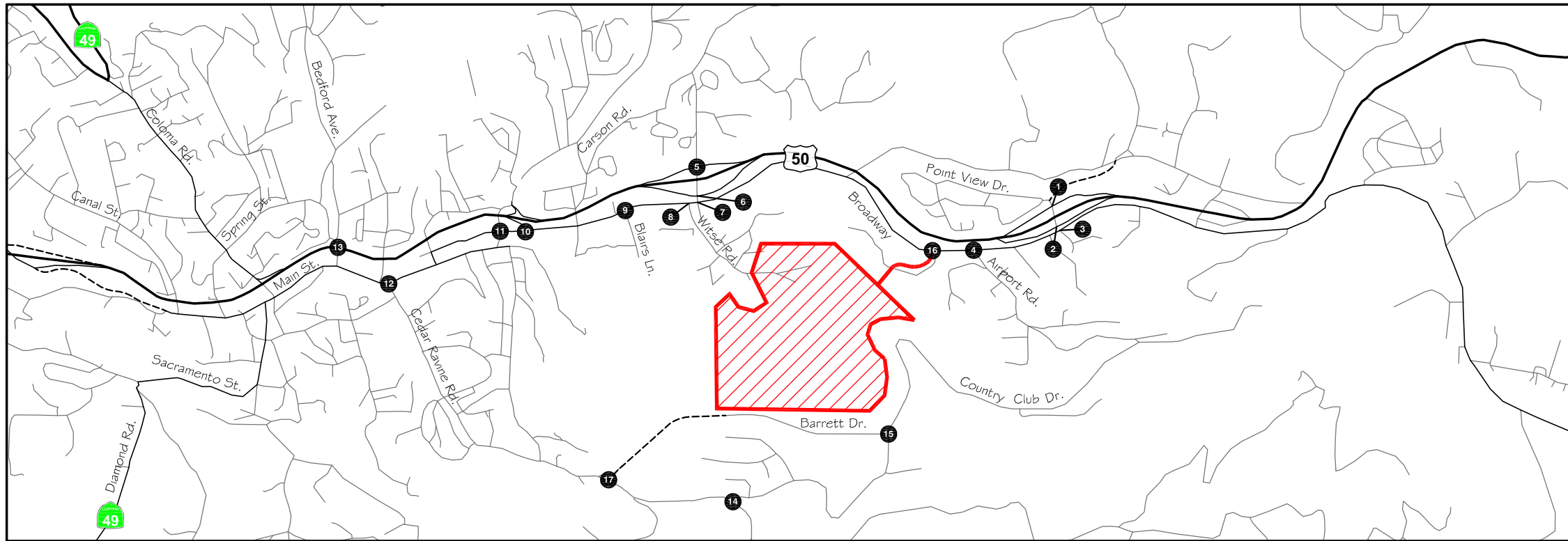


**Figure 3.10-12  
Freeway Peak Hour  
Traffic Volumes and  
Lane Configurations:  
Cumulative No Project  
Conditions**

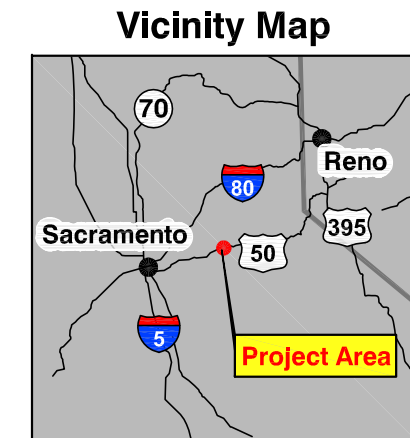
Lumsden Ranch EIR  
City of Placerville







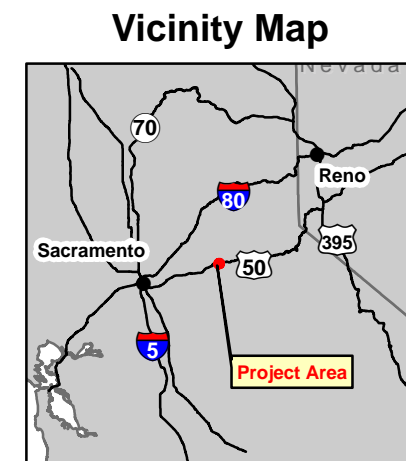
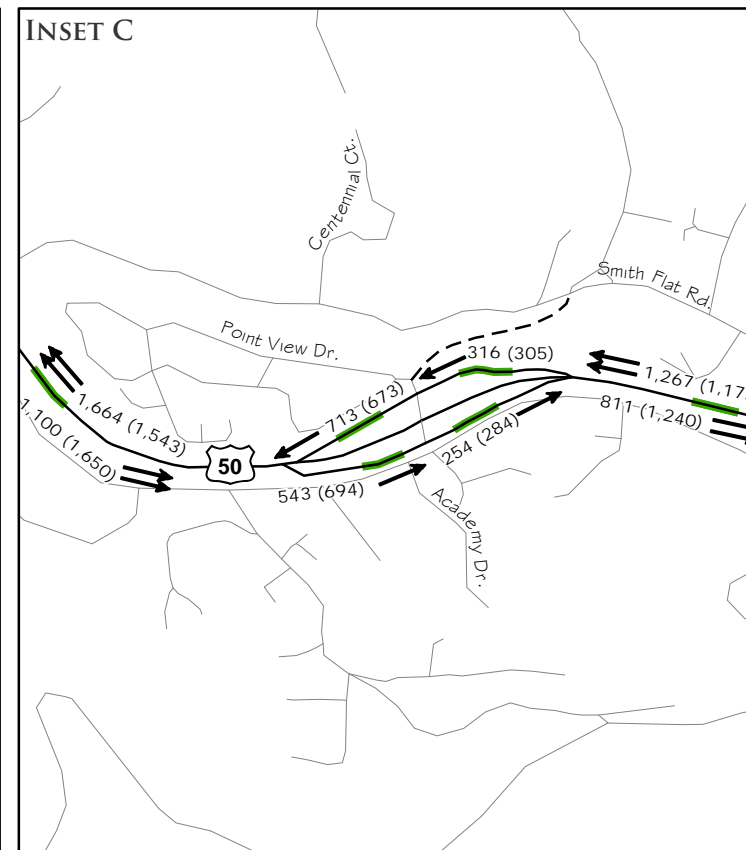
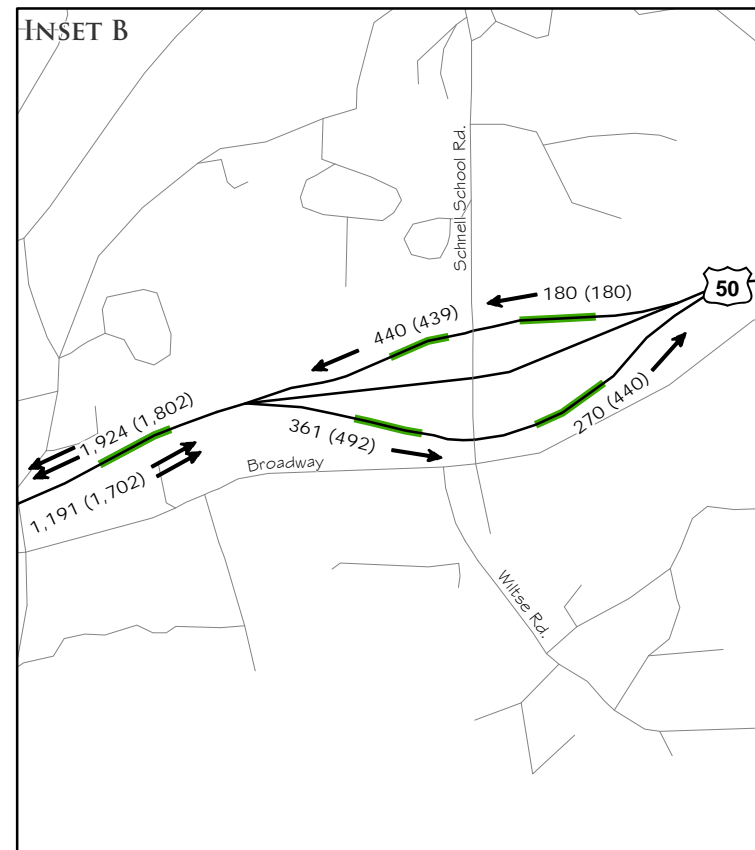
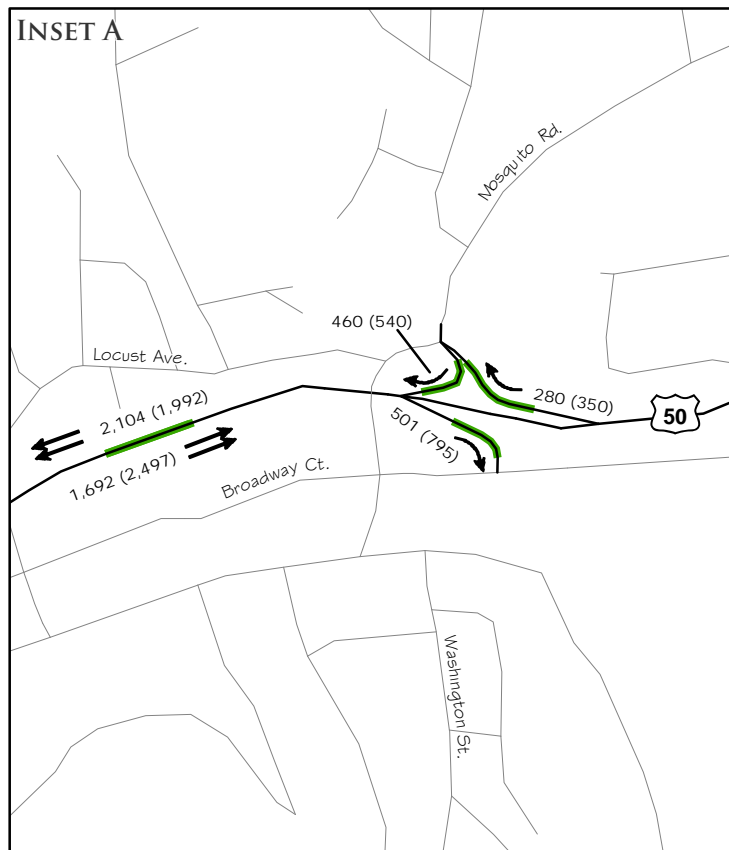
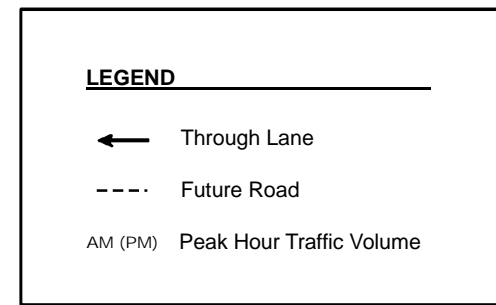
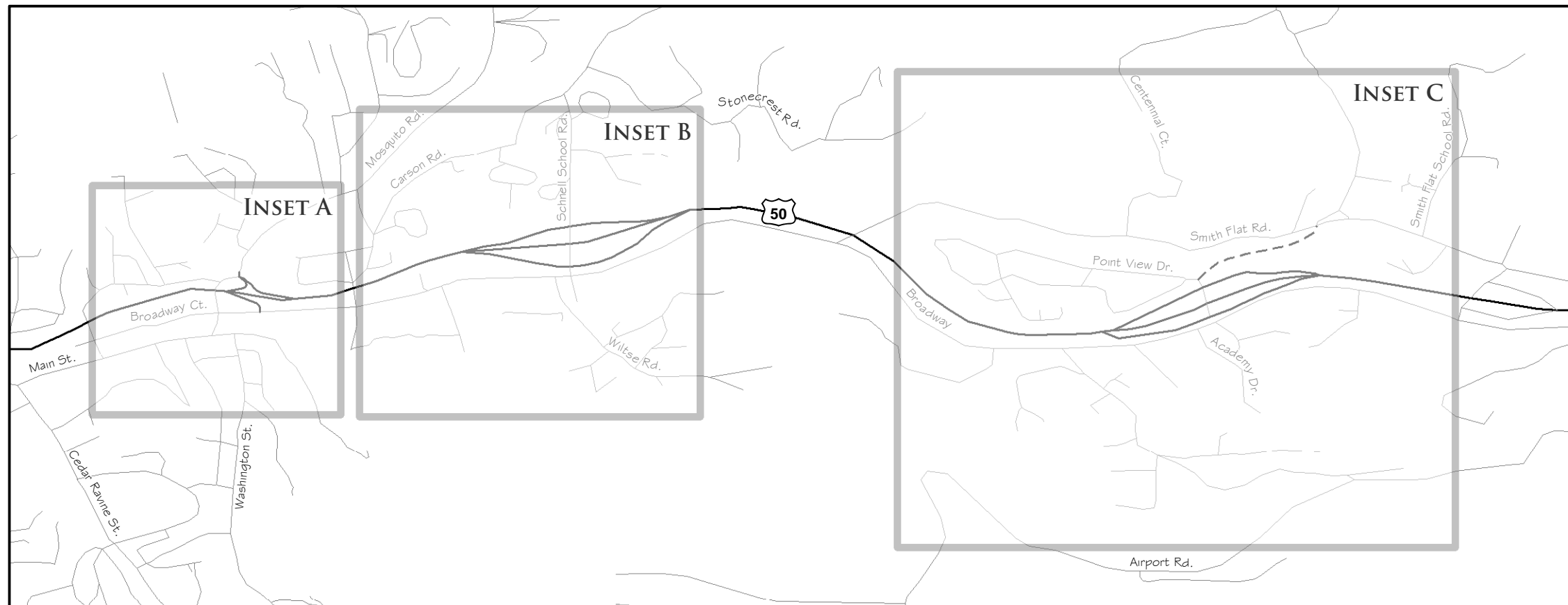
1. Point View Dr./US 50 WB Ramps	2. Point View Dr./US 50 EB Ramps	3. Point View Dr./Monterey Rd./Broadway	4. Airport Rd./Broadway	5. Schnell School Rd./US 50 WB Ramps	
<p>313 (403) 260 (290)</p> <p>260 (246) 10 (10) 46 (49)</p> <p>US 50 WB On-Ramp    US 50 WB Off-Ramp</p> <p>390 (260) 354 (471)</p>	<p>109 (162) 198 (193)</p> <p>283 (294) 10 (10) 250 (390)</p> <p>US 50 EB Off-Ramp    US 50 EB On-Ramp</p> <p>462 (338) 46 (81)</p>	<p>228 (258) 10 (10) 121 (267)</p> <p>300 (158) 82 (87) 10 (10)</p> <p>198 (250) 46 (164) 10 (10)</p> <p>Broadway</p> <p>10 (10) 10 (10) 10 (10)</p>	<p>167 (144) 131 (194)</p> <p>101 (244) 33 (52)</p> <p>41 (44) 134 (162)</p> <p>Broadway</p>	<p>170 (100) 201 (175)</p> <p>70 (90) 10 (10) 100 (80)</p> <p>US 50 WB On-Ramp    US 50 WB Off-Ramp</p> <p>260 (329) 244 (203)</p>	
6. Schnell School Rd./US 50 EB Ramps	7. Schnell School Rd./Broadway	8. Wiltse Rd./Broadway	9. Blairs Ln./Broadway	10. US 50 EB Ramps/Broadway	11. Mosquito Rd./Broadway
<p>211 (185) 90 (70)</p> <p>140 (100) 10 (10) 211 (382)</p> <p>US 50 EB Off-Ramp    US 50 EB On-Ramp</p> <p>364 (432) 170 (360)</p>	<p>240 (200) 10 (10) 172 (357)</p> <p>234 (312) 245 (256) 10 (10)</p> <p>290 (470) 159 (393) 10 (10)</p> <p>Broadway</p> <p>10 (10) 10 (10) 10 (10)</p>	<p>475 (426) 20 (40)</p> <p>439 (833) 20 (30)</p> <p>Broadway</p> <p>20 (30) 20 (40)</p>	<p>10 (30) 10 (10) 10 (10)</p> <p>10 (20) 468 (413) 10 (20)</p> <p>100 (60) 10 (10) 30 (40)</p> <p>Broadway</p>	<p>290 (260) 10 (10) 201 (525)</p> <p>433 (546) 10 (10)</p> <p>364 (685) 20 (40)</p> <p>Broadway</p> <p>40 (40) 30 (30)</p>	<p>10 (10) 190 (110) 80 (210)</p> <p>344 (503) 40 (10) 379 (333)</p> <p>10 (20) 10 (20) 10 (10)</p> <p>Broadway</p> <p>10 (10) 120 (190) 294 (495)</p>
12. Cedar Ravine Rd./Main St.	13. Bedford Ave./US 50	14. Cedar Ravine Rd./Country Club Dr.	15. Country Club Dr./Barrett Dr.	16. Canyon View Dr./Boadway	17. Barrett Dr./Cedar Ravine Rd.
<p>374 (506) 152 (186)</p> <p>248 (378) 254 (334)</p> <p>403 (268) 115 (193)</p> <p>Main St</p>	<p>140 (70) 91 (62) 163 (140)</p> <p>309 (246) 1,625 (1,656) 170 (90)</p> <p>70 (150) 1,459 (2,267) 271 (345)</p> <p>US 50</p> <p>324 (333) 112 (61) 70 (90)</p>	<p>101 (251) 32 (78)</p> <p>77 (45) 13 (12)</p> <p>101 (251) 32 (78)</p> <p>Cedar Ravine Rd.</p> <p>260 (202) 11 (13)</p> <p>Country Club Dr.</p>	<p>12 (17) 21 (31)</p> <p>16 (24) 29 (16)</p> <p>Barrett Dr.</p> <p>13 (20) 30 (31)</p>	<p>160 (120) 8 (28)</p> <p>80 (230) 53 (176)</p> <p>Broadway</p> <p>154 (101) 24 (16)</p>	<p>21 (17) 11 (11)</p> <p>10 (12) 407 (305)</p> <p>14 (22) 182 (418)</p> <p>Cedar Ravine Rd.</p>



**Figure 3.10-13  
Peak Hour Traffic Volumes  
and Lane Configurations:  
Long Term Cumulative  
Plus Project Conditions**







**Figure 3.10-14  
Freeway Peak Hour  
Traffic Volumes and  
Lane Configurations:  
Cumulative Plus Project  
Conditions**

Lumsden Ranch EIR  
City of Placerville





## Standards of Significance

Appendix G of the CEQA Guidelines (Consulting Engineers and Land Surveyors of California 2007) sets forth the following elements for consideration in identifying potentially significant impacts with respect to transportation.

- Causes an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., results in substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)
- Exceeds, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways
- Substantially increases hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Results in inadequate emergency access
- Results in inadequate parking supply
- Conflicts with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)

The following thresholds of significance were developed based upon the above elements of consideration and the regulatory setting described above. The City's General Plan makes no attempt to prescribe a mandatory LOS, but rather takes a more practical approach. The General Plan states that the City shall "strive to attain the highest possible traffic level of service consistent with financial resources available and within the limits of technical feasibility."

Since the General Plan does not include a specific minimum LOS, the City has historically established the appropriate LOS threshold for identifying significant project impacts on a case-by-case basis. A review of the historical determinations, however, has led the City to conclude that a LOS D has been found to be the appropriate minimum LOS below which further study and mitigation is merited. For example, the Mitigated Negative Declarations that the City prepared for the Gateway Hotel and the Stancil/Dover/Cimorelli projects both used LOS D. Further, it is recognized that LOS D may not be achievable in every circumstance given available financial resources and the limits of technical feasibility. For example, Main Street can not be widened to maintain LOS D without removing a substantial number of homes and businesses.

For these reasons, an impact is found at any intersection that operates acceptably (LOS A, B, C, or D) without the project but is degraded unacceptably (LOS E or F) due to the additional project-generated traffic. For intersections that are already operating unacceptably (LOS E or F) without the project, this EIR identifies an impact where project-generated traffic causes an increase of five seconds or more of control delay or an increase in the intersection's total peak traffic volume by 10 percent or more. Caltrans was consulted and these thresholds also satisfy the requirements for State facilities.

Adverse impacts to transportation and circulation are considered significant if the proposed project would result in conditions that satisfy the following thresholds.

## Operational Impacts

### *Intersections (City & Caltrans)*

- An intersection that operates acceptably (LOS A, B, C, or D) without the project is degraded unacceptably (LOS E or F) due to the additional traffic generated by the project.
- An intersection that operates unacceptably (LOS E or F) without the project experiences an increase of five or more seconds of control delay due to the additional traffic generated by the project, or traffic generated by the project increases the intersection's total peak hour traffic volume by 10 percent or more.

### *Freeways*

- A freeway ramp merge or diverge that operates acceptably (LOS A, B, C, or D) without the project is degraded unacceptably (LOS E or F) due to the additional traffic generated by the project.

## Non-operational Impacts

### *General Plan Consistency*

- Results in an inconsistency with a Placerville General Plan policy, as identified in the regulatory setting.

### *Access, Design, and Parking*

- Failure to provide two or more points of access.
- Results in inadequate access to adjacent uses.
- Encourages through-traffic within residential neighborhoods.
- New or reconstructed roadways that do not satisfy the standards pursuant to the California Manual on Uniform Traffic Control Devices (Caltrans 2004), Highway Design Manual (Caltrans 2007), and/or Street Standards contained in Part I of the City of Placerville General Plan Policy Document, as appropriate.
- Results in inadequate vehicle or bicycle parking capacity.
- Failure to provide a sidewalk on at least one side of any street developed as part of the project or is used as a perimeter street by the project.
- Interferes with, conflicts with, or precludes specifically planned roadway improvements such as roadway extensions/expansions.

### *Safety*

- Substantially increases hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Failure to provide adequate sight distances at intersections and driveways.

- Results in inadequate emergency access or fails to provide two points of access for public service providers.
- Interferes with an emergency response plan or emergency evacuation plan.

#### *Alternative Transportation Modes*

- Conflicts with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks), including the City of Placerville Non-motorized Transportation Plan and the City of Placerville Pedestrian Circulation Plan.
- Disrupts existing transit services or facilities or interferes with planned transit services or facilities.
- Creates demand for transit services above the capacity that is provided or planned.
- Disrupts existing bicycle facilities or interferes with planned bicycle facilities.
- Disrupts existing pedestrian facilities or interferes with planned pedestrian facilities.

#### *Construction*

- The construction of the project creates a temporary but prolonged impact due to lane closures, emergency vehicle access, traffic hazards to bikes/pedestrians, damage to the roadbed, or truck traffic on roadways not designated as truck routes.

### **Impacts and Mitigation Measures**

Project-specific and cumulative operational impacts are identified below. In addition, non-operational impacts are identified. Each impact is discussed along with one or more mitigation measure. The level of significance before and after mitigation is stated for each impact.

#### Operational Impacts

##### *Existing Plus Project Scenario: Direct Project Specific Impacts*

Operations of the transportation system were analyzed using the Existing Plus Project traffic volumes presented in Figure 3.10-7 and Figure 3.10-8. Table 3.10-10 and Table 3.10-11 present intersection and freeway operations with the project and provides a comparison to existing conditions.

The thresholds of significance were applied to identify significant project impacts. Study facilities at which the project will have a significant impact are highlighted in the tables identified above.

**Impact TT-1: The project would unacceptably degrade traffic operations at the Schnell School Road/U.S. 50 westbound ramps intersection.**

The project would cause traffic operations at the Schnell School Road/U.S. 50 westbound ramps intersection to degrade from acceptable (LOS C) to unacceptable (LOS E) during the morning peak hour. This is a significant impact. This intersection is owned and controlled by Caltrans.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-1: Install all-way stop sign control at the Schnell School Road/U.S. 50 westbound ramps intersection.*

The City will require the project applicant to install all-way stop sign control at the Schnell School Road/U.S. 50 westbound ramps intersection.

Installing all-way stop sign control would enable this intersection to operate at LOS C during the morning peak hour. No intersection widening, geometric change, or right-of-way acquisition would be required to facilitate the installation of stop sign control.

Caltrans may require installation of all-way stop sign control at the Schnell School Road/U.S. 50 eastbound ramps intersection in conjunction with this mitigation measure because both ramp terminal intersections at an interchange are typically controlled by the same type of traffic control. Doing so often enhances traffic flow and operations. If Caltrans requires installation of stop signs at the eastbound ramps intersection, the City would require the project applicant to install them as part of this mitigation measure. The Schnell School Road/U.S. 50 eastbound ramps intersection would continue to operate acceptably during the morning and evening peak hours with installation of all-way stop-sign control.

This intersection is owned and controlled by Caltrans, so implementation of this mitigation measure lies outside of the control of the City of Placerville and would require Caltrans' approval and oversight. As a result, neither the City of Placerville nor the project applicant can guarantee construction of the improvements identified in Mitigation Measure TT-1.

**Level of Significance After Mitigation: Significant and unavoidable because implementation of this mitigation measure cannot be guaranteed. However, this intersection would operate acceptably when the identified mitigation measure is implemented.**

**Impact TT-2: The project would unacceptably exacerbate degraded traffic operations at the U.S. 50 eastbound ramps/Broadway intersection near Mosquito Road.**

The project would exacerbate currently unacceptable operations at the U.S. 50 eastbound ramps/Broadway intersection near Mosquito Road by increasing control delay by more than five seconds during both the morning and evening peak hours at an intersection operating worse than LOS D. This is a significant impact. This intersection is owned and controlled by Caltrans.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-2: Pay a fair-share contribution toward construction of a traffic signal at the U.S. 50 eastbound ramps/Broadway intersection near Mosquito Road and reconfiguration of the adjacent access.*

The City will require the project applicant to pay a fair-share contribution toward construction of a traffic signal at the U.S. 50 eastbound ramps/Broadway intersection. Access to the gas station located on the south side of Broadway would need to be reconfigured to limit access to one driveway on Broadway, which would be located across from the U.S. 50 eastbound ramps to form the fourth leg of the intersection.

Signalizing the U.S. 50 eastbound ramps/Broadway intersection would enable this intersection to operate at LOS B during the evening peak hour with the Lumsden Ranch project. This intersection would satisfy the peak hour traffic signal warrant with the addition of project related traffic. This improvement would be consistent with the City's Traffic Impact Mitigation Program, which includes signalizing this intersection and provides approximately 40 percent of its funding via impact fees paid by developers throughout Placerville. No other intersection widening, geometric change, or right-of-way acquisition would be required to facilitate the signalization.

This intersection currently operates unacceptably, so this mitigation measure is partly needed to mitigate an existing deficiency. As a result, the project applicant would be required to pay a fair-share contribution toward installation of the signal rather than its full cost. Neither the City nor Caltrans have a mechanism in place to fund the remainder of this improvement; therefore, there would be no guarantee that a traffic signal would be constructed within a reasonable period of time.

This intersection is owned and controlled by Caltrans, so construction of a traffic signal at this location lies outside of the control of the City of Placerville and would require Caltrans' approval and oversight. As a result, neither the City of Placerville nor the project applicant can guarantee construction of the improvements identified in Mitigation Measure TT-2 even if full funding is ultimately secured.

**Level of Significance After Mitigation: Significant and unavoidable because no mechanism is in place to secure full funding for the needed physical improvement. In addition, construction of a funded improvement cannot be guaranteed. This intersection would operate acceptably with construction of the identified traffic signal.**

**Table 3.10-11. Intersection Delay and LOS–Existing Plus Project Conditions**

Intersection	Type	Existing				Existing Plus Project			
		A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
		Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>
1. Point View Dr./U.S. 50 WB Ramps	Side-Street Stop	14	B	11	B	15	B	11	B
2. Point View Dr./U.S. 50 EB Ramps	Side-Street Stop	9	A	10	A	9	A	10	A
3. Point View Dr./Broadway	All-Way Stop	9	A	10	A	9	A	10	A
4. Airport Rd./Broadway	Side-Street Stop	10	A	11	B	10	A	11	B
5. Schnell School Rd./U.S. 50 WB Ramps	Side-Street Stop	21	C	17	C	40	E	21	C
6. Schnell School Rd./U.S. 50 EB Ramps	Side-Street Stop	21	C	15	C	29	C	17	B
7. Schnell School Rd./Broadway <sup>3</sup>	All-Way Stop	6	A	10	A	8	A	18	C
8. Wiltse Rd./Broadway <sup>3</sup>	Side-Street Stop								
9. Blairs Ln./Broadway	Side-Street Stop	11	B	14	B	12	B	15	B
10. U.S. 50 EB Ramps/Broadway	Side-Street Stop	37	E	>50	F	44	E	>50	F
11. Mosquito Rd./Broadway	All-Way Stop	18	C	26	D	19	C	31	D
12. Cedar Ravine Rd./Main St.	All-Way Stop	12	B	17	C	12	B	19	C
13. Bedford Ave./U.S. 50	Signalized	17	B	26	C	18	B	32	C
14. Cedar Ravine Rd./Country Club Dr.	All-Way Stop	8	A	9	A	8	A	9	A
15. Country Club Dr./Barrett Dr.	Side-Street Stop	9	A	9	A	9	A	9	A
16. Canyon View Dr./Broadway	Side-Street Stop	N/A	N/A	N/A	N/A	11	B	14	B

<sup>1</sup> Delay reported in seconds per vehicle; <sup>2</sup> LOS based on Highway Capacity Manual (Transportation Research Board, 2000); <sup>3</sup> The Schnell School Road/Broadway and Wiltse Road/Broadway intersections were analyzed as a single intersection to accurately reflect its operation in the field.

Note: Shading indicates that the intersection would be significantly affected by the project based on the significance criteria. WB = westbound; EB = eastbound.

Source: Fehr & Peers 2007.

**Table 3.10-12. Ramp Junction Density and LOS—Existing Plus Project Conditions**

Ramp Junction	Type	Existing				Existing Plus Project			
		A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
		Density <sup>1</sup>	LOS <sup>2</sup>	Density <sup>1</sup>	LOS <sup>2</sup>	Density <sup>1</sup>	LOS <sup>2</sup>	Density <sup>1</sup>	LOS <sup>2</sup>
1. EB Broadway Off-Ramp	Diverge	11.0	B	20.3	C	11.4	B	21.3	C
2. EB Schnell School Road Off-Ramp	Diverge	7.7	A	16.2	B	8.0	A	17.2	B
3. EB Schnell School Road On-Ramp	Merge	6.7	A	14.7	B	6.7	A	14.7	B
4. EB Point View Drive Off-Ramp	Diverge	6.0	A	15.0	B	6.0	A	15.0	B
5. EB Point View Drive On-Ramp	Merge	6.0	A	13.8	B	6.2	A	14.3	B
6. WB Mosquito Road Off-Ramp	Diverge	16.9	B	12.2	B	17.9	B	12.8	B
7. WB Mosquito Road On-Ramp	Merge	17.8	B	14.9	B	18.7	B	15.5	B
8. WB Schnell School Road Off-Ramp	Diverge	14.3	B	9.3	A	14.3	B	9.3	A
9. WB Schnell School Road On-Ramp	Merge	16.5	B	11.9	B	17.5	B	12.4	B
10. WB Point View Drive Off-Ramp	Diverge	12.1	B	8.1	A	12.2	B	8.3	A
11. WB Point View Drive On-Ramp	Merge	14.4	B	10.0	A	14.5	B	10.0	A

<sup>1</sup>Density reported in passenger cars per mile per lane; <sup>2</sup>LOS based on Highway Capacity Manual (Transportation Research Board 2000).

Source: Fehr & Peers 2007.

### *Near Term Scenario*

Operations of the transportation system were analyzed using the Near Term No Project and Near Term Plus Project traffic volumes presented in Figure 3.10-9 and Figure 3.10-10. Table 3.10-12 and Table 3.10-13 present and compare intersection and freeway operations under near term conditions with and without the project.

The thresholds of significance were applied to identify significant near-term impacts. Study facilities at which the project will have a significant near-term impact are highlighted in the tables identified above.

#### **Impact TT-3: The project would unacceptably degrade traffic operations at the Schnell School Road/U.S. 50 westbound ramps intersection.**

The project would cause traffic operations at the Schnell School Road/U.S. 50 westbound ramps intersection to degrade from acceptable (LOS D) to unacceptable (LOS F) during the morning peak hour. This is a significant impact. This intersection is owned and controlled by Caltrans.

#### **Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-3: Install all-way stop sign control at the Schnell School Road/U.S. 50 westbound ramps intersection.*

This mitigation measure is identical to Mitigation Measure TT-1.

The City will require the project applicant to install all-way stop sign control at the Schnell School Road/U.S. 50 westbound ramps intersection.

Installing all-way stop sign control would enable this intersection to operate at LOS C during the morning peak hour. No intersection widening, geometric change, or right-of-way acquisition would be required to facilitate the installation of stop sign control.

This intersection is owned and controlled by Caltrans, so implementation of this mitigation measure lies outside of the control of the City of Placerville and would require Caltrans' approval and oversight. As a result, neither the City of Placerville nor the project applicant can guarantee construction of the improvements identified in Mitigation Measure TT-3.

**Level of Significance After Mitigation: Significant and unavoidable because implementation of this mitigation measure cannot be guaranteed. However, this intersection would operate acceptably the identified mitigation measure is implemented.**

#### **Impact TT-4: The project would unacceptably degrade traffic operations at the Schnell School Road/U.S. 50 eastbound ramps intersection.**

The project would cause traffic operations at the Schnell School Road/U.S. 50 eastbound ramps intersection to degrade from acceptable (LOS D) to unacceptable (LOS E) during the morning peak hour. This is a significant impact. This intersection is owned and controlled by Caltrans.



**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-4: Install all-way stop sign control at the Schnell School Road/U.S. 50 eastbound ramps intersection.*

The City will require the project applicant to install all-way stop sign control at the Schnell School Road/U.S. 50 eastbound ramps intersection.

Installing all-way stop sign control would enable this intersection to operate at LOS C during the morning peak hour. No intersection widening, geometric change, or right-of-way acquisition would be required to facilitate the installation of stop sign control.

This intersection is owned and controlled by Caltrans, so implementation of this mitigation measure lies outside of the control of the City of Placerville and would require Caltrans' approval and oversight. As a result, neither the City of Placerville nor the project applicant can guarantee construction of the improvements identified in Mitigation Measure TT-4.

**Level of Significance After Mitigation: Significant and unavoidable because implementation of this mitigation measure cannot be guaranteed. However, this intersection would operate acceptably the identified mitigation measure is implemented.**

**Table 3.10-13. Intersection Delay and LOS–Near Term and Near Term Plus Project**

Intersection	Type	Near Term				Near Term Plus Project			
		A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
		Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>
5. Schnell School Rd./U.S. 50 WB Ramps	Side-Street Stop	26	D	19	C	>50	F	25	C
6. Schnell School Rd./U.S. 50 EB Ramps	Side-Street Stop	27	D	18	C	42	E	20	C
7. Schnell School Rd./Broadway <sup>3</sup>	All-Way Stop	8	A	13	B	9	A	26	D
8. Wiltse Rd./Broadway <sup>3</sup>	Side-Street Stop								
16. Canyon View Dr./Broadway	Side-Street Stop	N/A	N/A	N/A	N/A	12	B	15	B

<sup>1</sup> Delay reported in seconds per vehicle; <sup>2</sup> LOS based on Highway Capacity Manual (Transportation Research Board 2000); <sup>3</sup> The Schnell School Road/Broadway and Wiltse Road/Broadway intersections were analyzed as a single intersection to accurately reflect its operation in the field.

Note: Shading indicates that the intersection would be significantly affected by the project based on the significance criteria.

Source: Fehr & Peers 2007.

**Table 3.10-14. Ramp Junction Density and LOS–Near Term and Near Term Plus Project**

Ramp Junction	Type	Near Term				Near Term Plus Project			
		A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
		Density <sup>1</sup>	LOS <sup>2</sup>	Density <sup>1</sup>	LOS <sup>2</sup>	Density <sup>1</sup>	LOS <sup>2</sup>	Density <sup>1</sup>	LOS <sup>2</sup>
1. EB Schnell School Road Off-Ramp	Diverge	7.8	A	16.3	B	8.1	A	17.3	B
2. EB Schnell School Road On-Ramp	Merge	6.8	A	14.8	B	6.8	A	14.8	B
3. WB Schnell School Road Off-Ramp	Diverge	14.3	B	9.4	A	14.3	B	9.5	A
4. WB Schnell School Road On-Ramp	Merge	16.6	B	12.4	B	17.5	B	13.0	B

<sup>1</sup> Density reported in passenger cars per mile per lane; <sup>2</sup> LOS based on Highway Capacity Manual (Transportation Research Board 2000).

Source: Fehr & Peers 2007.

### *Long Term Cumulative Scenario—Cumulative Impacts*

Operations of the transportation system were analyzed using the Long Term Cumulative No Project and Long Term Cumulative Plus Project traffic volumes presented in Figure 3.10-11, Figure 3.10-12, Figure 3.10-13, and Figure 3.10-14. Table 3.10-14 and Table 3.10-15 present and compare intersection and freeway operations under long term cumulative conditions with and without the project.

The thresholds of significance were applied to identify significant cumulative impacts. Study facilities at which the project will have a significant cumulative impact are highlighted in the tables identified above.

#### **Impact TT-5: The proposed and related projects would unacceptably degrade traffic operations throughout the Schnell School Road/Broadway/Wiltse Road/U.S. 50 ramps roadway system (i.e., the Schnell School Road System).**

Implementation of the Lumsden Ranch project in combination with future traffic growth would cause traffic operations at one or more intersections within the Schnell School Road System to degrade from acceptable (LOS D or better) to unacceptable (LOS E or F) during the morning and evening peak hours. The Schnell School Road System includes the following individual intersections:

- Schnell School Road/U.S. 50 westbound ramps
- Schnell School Road/U.S. 50 eastbound ramps
- Schnell School Road/Broadway
- Wiltse Road/Broadway

These intersections must be considered as a single system for mitigation purposes. They are closely spaced, with about 80 feet between Schnell School Road and Wiltse Road and 100 feet between Broadway and the U.S. 50 eastbound ramps. As a result, with the anticipated long-term cumulative traffic growth, traffic flow and congestion at each intersection directly influences the adjacent intersections within this system due to their close spacing. Further, any geometric or traffic control measures implemented at one intersection within this system directly influences the geometric or traffic control measures needed at the other intersections within the system. Therefore, this system-level analysis is necessary to ensure that the mitigation measures identified for each individual intersection within the system are appropriate and feasible from the system-wide perspective.

This is a significant impact. The Schnell School Road/U.S. 50 westbound ramps and Schnell School Road/U.S. 50 eastbound ramps intersections are owned and controlled by Caltrans. The Schnell School Road/Broadway and Wiltse Road/Broadway intersections are owned and controlled by the City of Placerville.

#### **Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-5: Pay a fair-share contribution toward construction of one of the following alternative improvement plans for the Schnell School Road System.*

The City will require the project applicant to pay a fair-share contribution toward construction of one of the following alternative improvement plans for the Schnell School

Road System. Multiple alternatives were identified to provide the public and decision makers a full understanding of the range of alternatives available along with their ramifications. Because the Schnell School Road System is bordered by built-out land use along Broadway, and because Wiltse is very closely spaced to Schnell School Road, the selected alternative may have significant ramifications for local business and residences. As a result, selection of an alternative mitigation measure will involve trade-offs. To facilitate this decision making process, the following alternatives were identified. The alternatives range from requiring minimal to substantial right of way acquisition.

*Alternative 1: Implement three traffic signals and realign Wiltse Road to the east to intersect Broadway opposite Schnell School Road.*

Traffic signals would be located at the following intersections: Schnell School Road/U.S. 50 westbound ramps, Schnell School Road/U.S. 50 eastbound ramps, and Schnell School Road/Broadway/Wiltse Road. This alternative would have the following geometric characteristics.

#### Schnell School Road/U.S. 50 Westbound Ramps

- Widen the northbound approach to include one exclusive left-turn lane and one exclusive through lane
- All other intersection approaches would retain their existing geometrics

#### Schnell School Road/U.S. 50 Eastbound Ramps

- Widen the northbound approach to include one shared through-right lane and one exclusive right-turn lane
- Widen the southbound approach to include one exclusive left-turn lane and one through lane
- Widen the eastbound approach to include one shared through-left lane and two exclusive right-turn lanes
- Widen the U.S. 50 eastbound on-ramp to include two lanes that merge to one in advance of the mainline gore point, which is the location where the on-ramp begins to connect to the U.S. 50 mainline lanes

#### Schnell School Road/Broadway/Wiltse Road

- Realign Wiltse Road to the east to form the fourth leg of the newly signalized intersection, which is configured with a single shared left-through-right lane
- Widen the southbound approach to include one exclusive left-turn lane, one shared through-left lane, and one exclusive right-turn lane
- Widen the eastbound approach to include two exclusive left-turn lanes and one shared through-right turn lane
- Widen the westbound approach to include one shared left-through lane and two exclusive right-turn lanes
- Widen the eastbound Broadway departure to include two lanes, and the northbound Schnell School Road departure to include two lanes

Implementation of Alternative 1 would allow each intersection within the Schnell School Road System to operate at an acceptable LOS. Signalizing the Schnell School Road/U.S. 50 westbound ramps intersection would enable this intersection to operate at LOS D or better during both the morning and evening peak hour. The Schnell School Road/U.S. 50 westbound ramps intersection would not satisfy the peak hour traffic signal warrant with the addition of project related traffic; however, signalizing this intersection would be appropriate to facilitate signalization of adjacent intersections including the U.S. 50 eastbound ramps. Signalizing the Schnell School Road/U.S. 50 eastbound ramps intersection would enable this intersection to operate at LOS D or better during both the morning and evening peak hour. Signalizing the Schnell School Road/Broadway/Wiltse Road intersection would enable this intersection to operate at LOS D or better during both the morning and evening peak hour.

To implement this alternative, substantial right-of-way would need to be obtained, and realignment of Wiltse Road would require additional environmental analysis. In addition, this alternative mitigation measure may require the Schnell School Road undercrossing of U.S. 50 to be widened, particularly to maintain adequate sidewalk width for pedestrians, including those traveling to the Louisiana Schnell Elementary School, but additional design-level evaluation would be needed to make this determination.

*Alternative 2: Implement three roundabouts: (1) a single-lane roundabout at the Schnell School Road/U.S. 50 westbound ramps intersection; (2) a five-legged two-lane roundabout including the following approaches: Broadway, Schnell School Road, the U.S. 50 eastbound off-ramp, and the U.S. 50 eastbound on-ramp; and (3) a three-legged single-lane roundabout at the Wiltse Road/Broadway intersection.*

#### Schnell School Road/U.S. 50 Westbound Ramps Single-lane Roundabout

- Configure as a single-lane roundabout with a single approach/departure lane on each approach

#### Schnell School Road/Broadway/U.S. 50 eastbound ramps two-lane roundabout

- Configure as a five-legged two-lane roundabout including the following approaches: Broadway (east and west), Schnell School Road, the U.S. 50 eastbound off-ramp, and the U.S. 50 eastbound on-ramp
- Both Broadway legs should include two approach lanes and one departure lane
- The Schnell School Road leg should include one approach lane and one departure lane
- The U.S. 50 eastbound off-ramp approach should include two lanes
- The U.S. 50 eastbound on-ramp departure should include two lanes, which would require the U.S. 50 eastbound on-ramp to be widened

#### Wiltse Road/Broadway Single-lane Roundabout

- Configure as a three-legged single lane roundabout
- Each leg should have one approach lane
- The eastbound Broadway departure should have two lanes, while the other two departures should have one lane

Construction of Alternative 2 would allow each intersection within the Schnell School Road System to operate at an acceptable LOS. Each roundabout would operate at LOS D or better during both the morning and evening peak hour.

To implement this alternative, extensive right-of-way would need to be obtained on all quadrants of each intersection within the Schnell School Road System.

*Alternative 3: Implement three traffic signals, restrict Wiltse Road to right turns in/out only (no realignment of Wiltse Road), and widen Schnell School Road within its undercrossing of U.S. 50.*

#### Schnell School Road/U.S. 50 Westbound Ramps

- Widen the U.S. 50 westbound off-ramp to include one shared through-right lane and one exclusive right-turn lane
- Widen the northbound approach to include one exclusive left-turn lane and one exclusive through lane
- Configure the exclusive left-turn lane as a trap lane that extends all the way to the U.S. 50 eastbound ramps intersection

#### Schnell School Road/U.S. 50 Eastbound Ramps

- Widen the northbound approach to include one exclusive through lane, one shared through-right lane, and one exclusive right-turn lane
- All other intersection approaches would retain their existing geometrics

#### Schnell School Road/Broadway

- Restripe the eastbound approach to include one exclusive left-turn lane and one shared left-through-right lane
- All other intersection approaches would retain their existing geometrics

#### Wiltse Road/Broadway

- Restrict Wiltse Road to right-turn in/out only
- Construct a raised median to physically eliminate left-turns in/out of Wiltse Road
- Place “KEEP CLEAR” pavement markings on eastbound Broadway adjacent to Wiltse Road

Construction of Alternative 3 would not allow the Schnell School Road/Broadway intersection to operate at an acceptable LOS, nor would it reduce delay at this intersection to less-than-cumulative levels without the project, which was the delay identified in the Long Term Cumulative No Project scenario. Each of the other intersections within the Schnell School Road System would operate at LOS D or better during both the morning and evening peak hour.

The Schnell School Road/U.S. 50 westbound ramps intersection would not satisfy the peak hour traffic signal warrant with the addition of project-related traffic; however,

signalizing this intersection would be appropriate to facilitate signalization of adjacent intersections including the U.S. 50 eastbound ramps.

Only minimal right-of-way would need to be obtained to implement this alternative, and the areas in which additional right-of-way would be needed are not currently developed. However, this alternative mitigation measure may require the Schnell School Road undercrossing of U.S. 50 to be widened, particularly to maintain adequate sidewalk width for pedestrians, including those traveling to the Louisiana Schnell Elementary School, but additional design-level evaluation would be needed to make this determination.

*Alternative 4: Implement three traffic signals, restrict Wiltse Road to right turns in/out only (no realignment of Wiltse Road).*

#### Schnell School Road/U.S. 50 Westbound Ramps

- Widen the U.S. 50 westbound off-ramp to include one shared through-right lane and one exclusive right-turn lane
- All other intersection approaches would retain their existing geometrics

#### Schnell School Road/U.S. 50 Eastbound Ramps

- Widen the northbound approach to include one shared through-right lane and one exclusive right-turn lane
- All other intersection approaches would retain their existing geometrics

#### Schnell School Road/Broadway

- Restripe the eastbound approach to include one exclusive left turn lane and one shared left-through-right lane
- All other intersection approaches would retain their existing geometrics

#### Wiltse Road/Broadway

- Restrict Wiltse Road to right-turn in/out only
- Construct a raised median to physically eliminate left turns in/out of Wiltse Road
- Place "KEEP CLEAR" pavement markings on eastbound Broadway adjacent to Wiltse Road

Construction of Alternative 4 would not allow the Schnell School Road/Broadway intersection to operate at an acceptable LOS, nor would it reduce delay at this intersection to less-than-cumulative levels without the project, which was the delay identified in the Long Term Cumulative No Project scenario. Further, vehicle queues may develop that extend far from the intersection on Schnell School Road to the north (toward Carson Road) and on Broadway to the west (toward downtown). This may result in significant delays throughout the evening peak hour. Each of the other intersections within the Schnell School Road System would operate at LOS D or better during both the morning and evening peak hours.

The Schnell School Road/U.S. 50 westbound ramps intersection would not satisfy the peak hour traffic signal warrant with the addition of project-related traffic; however, signalizing this intersection would be appropriate to facilitate signalization of adjacent intersections including the U.S. 50 eastbound ramps.

Only minimal right-of-way would need to be obtained to implement this alternative, and the areas in which additional right-of-way would be needed are not currently developed. In addition, sidewalk widths through the U.S. 50 Schnell School Road undercrossing of U.S. 50 would not be affected.

**Level of Significance After Mitigation: Significant and unavoidable because construction of the physical improvements necessary to reduce impacts to less than significant cannot be guaranteed regardless of the mitigation alternative selected. No mechanism is in place to secure full funding for the needed physical improvements. Further, portions of the Schnell School Road system (specifically the intersections of Schnell School Road with the U.S. 50 westbound ramps and eastbound ramps) are outside of the control of the City and the applicant. In addition, each alternative has other issues unique to it that also preclude certainty; a summary of issues that preclude certainty for each alternative mitigation measure is provided below.**

#### Alternative 1

- Would require extensive right-of-way acquisition
- Realignment of Wiltse Road would require additional environmental analysis
- May require the Schnell School Road undercrossing of U.S. 50 to be widened, particularly to maintain adequate sidewalk width for pedestrians, including those traveling to the Louisiana Schnell Elementary School, but additional design-level evaluation would be needed to make this determination

#### Alternative 2

- Would require extensive right-of-way acquisition

#### Alternative 3

- May require the Schnell School Road undercrossing of U.S. 50 to be widened, particularly to maintain adequate sidewalk width for pedestrians, including those traveling to the Louisiana Schnell Elementary School, but additional design-level evaluation would be needed to make this determination
- Delay at the Schnell School Road/Broadway intersection would not be reduced to less-than-cumulative levels without the project, which was the delay identified in the Long Term Cumulative No Project scenario during the evening peak hour. The City Council would need to determine that this would not violate General Plan Policy A.1 because additional improvements would go beyond the financial resources available and the limits of technical feasibility. Such a finding may be appropriate if Alternatives 1 and 2 are found to be infeasible due to fiscal or technical reasons.



Alternative 4

- Delay at the Schnell School Road/Broadway intersection would not be reduced to less-than-cumulative levels without the project, which was the delay identified in the Long Term Cumulative No Project scenario during the evening peak hour. The City Council would need to determine that this would not violate General Plan Policy A.1 because additional improvements would go beyond the financial resources available and the limits of technical feasibility. Such a finding may be appropriate if Alternatives 1, 2, and 3 are found to be infeasible.

**Table 3.10-15. Intersection Delay and LOS—Long Term Cumulative No Project and Long Term Cumulative Plus Project Conditions**

Intersection	Type	Cumulative No Project				Cumulative Plus Project			
		A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
		Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>
1. Point View Dr./U.S. 50 WB Ramps	Side-Street Stop	>50	F	>50	F	>50	F	>50	F
2. Point View Dr./U.S. 50 EB Ramps	Side-Street Stop	>50	F	>50	F	>50	F	>50	F
3. Point View Dr./Broadway	All-Way Stop	12	B	17	B	13	B	18	C
4. Airport Rd./Broadway	Side-Street Stop	11	B	14	B	11	B	15	B
5. Schnell School Rd./U.S. 50 WB Ramps	Side-Street Stop	27	D	29	D	50	F	25	C
6. Schnell School Rd./U.S. 50 EB Ramps	Side-Street Stop	25	D	28	D	32	D	>50	F
7. Schnell School Rd./Broadway <sup>3</sup>	All-Way Stop	13	B	>50	F	16	C	>50	F
8. Wiltse Rd./Broadway <sup>3</sup>	Side-Street Stop								
9. Blairs Ln./Broadway	Side-Street Stop	20	C	23	C	17	C	25	C
10. U.S. 50 EB Ramps/Broadway	Side-Street Stop	>50	F	>50	F	>50	F	>50	F
11. Mosquito Rd./Broadway	All-Way Stop	21	C	42	E	24	C	49	E
12. Cedar Ravine Rd./Main St.	All-Way Stop	24	C	35	D	28	D	40	E
13. Bedford Ave./U.S. 50	Signalized	55	E	45	D	62	E	47	D
14. Cedar Ravine Rd./Country Club Dr.	All-Way Stop	9	A	10	A	9	A	10	A
15. Country Club Dr./Barrett Dr.	Side-Street Stop	9	A	9	A	9	A	9	A
16. Canyon View Dr./Broadway	Side-Street Stop	N/A	N/A	N/A	N/A	12	B	14	B
17. Barrett Dr./Cedar Ravine Rd.	Side-Street Stop	12	B	13	B	12	B	13	B

<sup>1</sup>Delay reported in seconds per vehicle; <sup>2</sup>LOS based on Highway Capacity Manual (Transportation Research Board 2000); <sup>3</sup>The Schnell School Road/Broadway and Wiltse Road/Broadway intersections were analyzed as a single intersection to accurately reflect its operation in the field.

Note: Shading indicates that the intersection would be significantly affected by the project based on the significance criteria.

Source: Fehr & Peers 2007.

**Table 3.10-16. Ramp Junction Density and LOS—Long Term Cumulative Conditions and Long Term Cumulative Conditions Plus Project**

Ramp Junction	Type	Cumulative No Project				Cumulative Conditions Plus Project			
		A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
		Density <sup>1</sup>	LOS <sup>2</sup>	Density <sup>1</sup>	LOS <sup>2</sup>	Density <sup>1</sup>	LOS <sup>2</sup>	Density <sup>1</sup>	LOS <sup>2</sup>
1. EB Broadway Off-Ramp	Diverge	18.0	B	25.8	C	18.9	B	26.8	C
2. EB Schnell School Road Off-Ramp	Diverge	13.3	B	18.2	B	14.2	B	19.2	B
3. EB Schnell School Road On-Ramp	Merge	12.5	B	17.8	B	13.0	B	17.8	B
4. EB Point View Drive Off-Ramp	Diverge	12.7	B	18.7	B	13.3	B	18.7	B
5. EB Point View Drive On-Ramp	Merge	9.9	A	14.3	B	10.6	B	14.4	B
6. WB Mosquito Road Off-Ramp	Diverge	21.1	C	20.2	C	22.0	C	20.8	C
7. WB Mosquito Road On-Ramp	Merge	21.1	C	20.3	C	22.0	C	20.9	C
8. WB Schnell School Road Off-Ramp	Diverge	18.7	B	17.5	B	18.7	B	17.5	B
9. WB Schnell School Road On-Ramp	Merge	19.6	B	18.8	B	20.4	C	19.3	B
10. WB Point View Drive Off-Ramp	Diverge	14.6	B	14.6	B	14.7	B	13.8	B
11. WB Point View Drive On-Ramp	Merge	17.6	B	16.6	B	17.7	B	16.6	B

<sup>1</sup>Density reported in passenger cars per mile per lane; <sup>2</sup>LOS based on Highway Capacity Manual (Transportation Research Board 2000).

Source: Fehr & Peers 2007.

**Impact TT-6: The proposed and related projects would unacceptably degrade traffic operations at the Mosquito Road/Broadway intersection.**

Implementation of the Lumsden Ranch project along with future traffic growth would cause traffic operations at the Mosquito Road/Broadway intersection to degrade unacceptably by increasing control delay by more than five seconds during the evening peak hour at an intersection that would operate worse than LOS D without the project. This intersection is owned and controlled by the City of Placerville. This is a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-6: Pay a fair-share contribution toward construction of a traffic signal at the Mosquito Road/Broadway intersection.*

Signalizing the Mosquito Road/Broadway intersection would enable this intersection to operate at LOS B during the evening peak hour with the Lumsden Ranch project. No intersection widening, geometric change, or right-of-way acquisition would be required to facilitate the signalization. This intersection would satisfy the peak hour traffic signal warrant with the addition of project-related traffic.

This mitigation measure is partly needed to mitigate the impacts of cumulative traffic growth. As a result, the project applicant would be required to pay a fair-share contribution toward installation of the signal rather than its full cost. This improvement would be consistent with the City's Traffic Impact Mitigation Program, which includes signalizing this intersection and provides approximately 40 percent of its funding via impact fees paid by developers throughout Placerville. However, the City does not have a mechanism in place to fund the remainder of this improvement; therefore, there would be no guarantee that a traffic signal would be constructed within a reasonable period of time.

**Level of Significance After Mitigation: Significant and unavoidable because no mechanism is in place to secure full funding for the needed physical improvement. This intersection would operate acceptably with construction of the identified traffic signal.**

**Impact TT-7: The proposed and related projects would unacceptably degrade traffic operations at the Cedar Ravine Road/Main Street intersection.**

Implementation of the Lumsden Ranch project along with future traffic growth would cause traffic operations at the Cedar Ravine Road/Main Street intersection to degrade from acceptable (LOS D) to unacceptable (LOS E) during the evening peak hour. This intersection is owned and controlled by the City of Placerville. This is a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-7: Construct a single-lane roundabout at the Cedar Ravine Road/Main Street intersection.*

The City will construct a single-lane roundabout at the Cedar Ravine Road/Main Street intersection.

A single-lane roundabout would operate at LOS C during the morning and evening peak hours. This improvement is consistent with the Clay Street Realignment project as well as the City's Traffic Impact Mitigation Program, which includes constructing a roundabout at this intersection. The City has secured full funding for this improvement through a combination of traffic impact mitigation fees and federal funds, so no additional funding would be provided by the applicant for this improvement beyond the payment of their Traffic Impact Mitigation Program fee. If additional right-of-way is needed, the City would need to obtain it either through purchase or eminent domain.

**Level of Significance After Mitigation: Less than significant because the intersection would operate acceptably.**

**Impact TT-8: The proposed and related projects would unacceptably degrade traffic operations at the U.S. 50 eastbound ramps/Broadway intersection.**

Implementation of the Lumsden Ranch project along with future traffic growth would cause traffic operations at the U.S. 50 eastbound ramps/Broadway intersection to degrade unacceptably by increasing control delay by more than five seconds during the morning and evening peak hours at an intersection that would operate worse than LOS D without the project. This intersection is owned and controlled by Caltrans. This is a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-8: Pay a fair-share contribution toward construction of a traffic signal at the U.S. 50 eastbound ramps/Broadway intersection, and reconfiguration/widening of its approaches/departures.*

This mitigation measure is partly needed to mitigate the impacts of cumulative traffic growth. As a result, the project applicant would be required to pay a fair-share contribution toward installation of the signal rather than its full cost.

To facilitate signalization, the fair-share contribution would also consider the cost to construct the following supporting improvements.

- Change the pavement delineation on the U.S. 50 eastbound off-ramp to include one exclusive left-turn lane and one shared left-through-right lane.
- Widen eastbound Broadway to provide an additional through lane from the intersection to 300 feet to 500 feet east of the intersection to provide a receiving lane for the additional left-turn lane.
- Reconfigure access to the gas station located on the south side of Broadway to limit access to one driveway on Broadway, which would be located across from the U.S. 50 eastbound ramps to form the fourth leg of the intersection.

Signalizing the U.S. 50 eastbound ramps/Broadway intersection would reduce the delay at this intersection to less-than-cumulative levels without the project, which was the

delay identified in the Long Term Cumulative No Project scenario; however, this intersection would continue to operate worse than LOS D during the evening peak hour. This improvement would be consistent with the City's Traffic Impact Mitigation Program, which includes signaling this intersection and provides approximately 40 percent of its funding via impact fees paid by developers throughout Placerville. However, neither the City nor Caltrans have a mechanism in place to fund the remainder of this improvement; therefore, there would be no guarantee that a traffic signal would be constructed within a reasonable period of time.

Widening eastbound Broadway may be accomplished by converting the median two-way-left-turn to a through lane. No other intersection widening, geometric change, or right-of-way acquisition would be required to facilitate the signalization. This intersection would satisfy the peak hour traffic signal warrant with the addition of project-related traffic.

This intersection is owned and controlled by Caltrans, so implementation of this mitigation measure lies outside of the control of the City of Placerville and would require Caltrans' approval and oversight. As a result, neither the City of Placerville nor the project applicant can guarantee construction of the improvements identified in Mitigation Measure TT-8.

**Level of Significance After Mitigation: Significant and unavoidable because no mechanism is in place to secure full funding for the needed physical improvement. Further, this intersection is outside of the control of the City and the applicant. As a result, there is no guarantee that the identified physical improvements could be implemented within a reasonable amount of time. Delay at this intersection would be reduced to less-than-cumulative levels without the project, which was the delay identified in the Long Term Cumulative No Project scenario; however, this intersection would continue to operate worse than LOS D during the evening peak hour. Even though this intersection would operate worse than LOS D during the evening peak hour, this mitigation measure would be consistent with General Plan Policy A.1 because further capacity enhancements would require extensive redesign of access to adjacent parcels and their parking lots, which would be more costly than the benefit derived.**

**Impact TT-9: The proposed and related projects would unacceptably degrade traffic operations at the Bedford Avenue/U.S. 50 intersection.**

Implementation of the Lumsden Ranch project along with future traffic growth would cause traffic operations at the Bedford Avenue/U.S. 50 intersection to degrade unacceptably by increasing control delay by more than five seconds during the morning peak hour at an intersection that would operate worse than LOS D without the project. This intersection is owned and controlled by Caltrans. This is a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-9: Pay a fair-share contribution toward construction of widening of the westbound approach to the Bedford Avenue/U.S. 50 intersection to include an exclusive right-turn lane.*

This mitigation measure is partly needed to mitigate the impacts of cumulative traffic growth. As a result, the project applicant would be required to pay a fair-share contribution toward construction of the identified improvement rather than its full cost. However, neither the City nor Caltrans have a mechanism in place to fund the remainder of this improvement; therefore, there would be no guarantee that the physical improvement would be constructed within a reasonable period of time.

Widening the westbound approach to the Bedford Avenue/U.S. 50 intersection would reduce the delay at this intersection to less-than-cumulative levels without the project, which was the delay identified in the Long Term Cumulative No Project scenario; however, this intersection would continue to operate worse than LOS D during the morning peak hour. This improvement may require additional right-of-way and a retaining wall.

This intersection is owned and controlled by Caltrans, so implementation of this mitigation measure lies outside of the control of the City of Placerville and would require Caltrans' approval and oversight. As a result, neither the City of Placerville nor the project applicant can guarantee construction of the improvements identified in Mitigation Measure TT-9.

**Level of Significance After Mitigation: Significant and unavoidable because no mechanism is in place to secure full funding for the needed physical improvement. Further, this intersection is outside of the control of the City and the applicant. As a result, there is no guarantee that the identified physical improvements could be implemented within a reasonable amount of time. Delay at this intersection would be reduced to less-than-cumulative levels without the project, which was the delay identified in the Long Term Cumulative No Project scenario; however, this intersection would continue to operate worse than LOS D during the morning peak hour. Even though this intersection would operate worse than LOS D during the morning peak hour, this mitigation measure would be consistent with General Plan Policy A.1 because further capacity enhancements would be infeasible due to physical and right-of-way constraints.**

**Impact TT-10: The proposed and related projects would unacceptably degrade traffic operations at the Point View Drive/U.S. 50 westbound ramps intersection.**

Implementation of the Lumsden Ranch project along with future traffic growth would cause traffic operations at the Point View Drive/U.S. 50 westbound ramps intersection to degrade unacceptably by increasing control delay by more than five seconds during the morning and evening peak hours at an intersection that would operate worse than LOS D without the project. This intersection is owned and controlled by Caltrans. This is a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-10: Pay a fair-share contribution toward the construction of a roundabout at the Point View Drive/U.S. 50 westbound ramps intersection.*

This mitigation measure is partly needed to mitigate the impacts of cumulative traffic growth. As a result, the City will require the project applicant to pay a fair-share

contribution toward the construction of a roundabout at the Point View Drive/U.S. 50 westbound ramps intersection rather than its full cost.

Installing a roundabout at this intersection would enable it to operate at LOS D or better during the morning and evening peak hours. However, no funding mechanism is in place to fully fund this improvement. In addition, extensive right-of-way would need to be obtained.

**Level of Significance After Mitigation: Significant and unavoidable because no funding mechanism is in place to fully fund this improvement. Further, this intersection is outside of the control of the City and the applicant. In addition, extensive right-of-way would need to be obtained. As a result, there is no guarantee that this mitigation measure could be implemented within a reasonable amount of time. However, if this physical improvement is constructed this intersection would operate acceptably.**

**Impact TT-11: The proposed and related projects would unacceptably degrade traffic operations at the Point View Drive/U.S. 50 eastbound ramps intersection.**

Implementation of the Lumsden Ranch project along with future traffic growth would cause traffic operations at the Point View Drive/U.S. 50 eastbound ramps intersection to degrade unacceptably by increasing control delay by more than five seconds during the morning and evening peak hours at an intersection that would operate worse than LOS D without the project. This is a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-11: Pay a fair-share contribution toward the construction of a roundabout at the Point View Drive/U.S. 50 eastbound ramps intersection.*

This mitigation measure is partly needed to mitigate the impacts of cumulative traffic growth. As a result, the City will require the project applicant to pay a fair-share contribution toward the construction of a roundabout at the Point View Drive/U.S. 50 eastbound ramps intersection rather than its full cost.

Installing a roundabout at this intersection would enable it to operate at LOS D or better during the morning and evening peak hours. However, no funding mechanism is in place to fully fund this improvement. In addition, extensive right-of-way would need to be obtained.

**Level of Significance After Mitigation: Significant and unavoidable because no funding mechanism is in place to fully fund this improvement. Further, this intersection is outside of the control of the City and the applicant. In addition, extensive right-of-way would need to be obtained. As a result, there is no guarantee that this mitigation measure could be implemented within a reasonable amount of time. However, if this mitigation measure is implemented, this intersection would operate acceptably.**



### Non-operational Impacts

In addition to the operational impacts described above, the following addresses significant non-operational impacts associated with the proposed project.

#### *General Plan Consistency*

The project was evaluated to determine if it is consistent with the City's General Plan policies. Table 3.10-1 summarizes the evaluation.

#### **Impact TT-12: The project would result in an inconsistency with a General Plan policy.**

Policy A.2 in Section III of the City's General Plan requires implementation of roadways in accordance with the City's Master Street Plan. The Master Street Plan schematically shows several roadways connecting the project area to the rest of Placerville. These roads include a street passing through Lumsden Ranch between Broadway and Barrett Drive following the approximate route of Canyon View Drive, a street connection to Lumsden Ranch from the southern end of Wiltse Road, a street connection to Lumsden Ranch from the southern end of Lumsden Park Access Road, and a street connecting Lumsden Ranch to the City street system on the west. This western street is schematically shown crossing through the western project area boundary and connecting with a City street in the area currently being developed as Eskaton at Spanish Hill. The plan provides drivers with several travel route options through this area, including extensions of Blairs Lane, Spanish Ravine Road, or Ridge Court to reach Broadway and a future Barrett Drive Extension to reach Barrett Drive or Cedar Ravine Road.

The Lumsden Ranch Project does not include and/or allow for all of the roadways contained in the City's Master Street Plan and identified above. The project would include construction of Canyon View Drive, which would provide a street connection between Broadway and Barrett Drive. The City has determined that Wiltse Road would not feasibly provide vehicle access to Lumsden Ranch for several reasons (see EIR Section 6.2.1 for further discussion). Therefore, street connections with Wiltse Road and the Lumsden Park Access Road are not included in the project. The project also does not include a western street connection to Eskaton. Because the project does not include this western street connection, the project is inconsistent with the Master Street Plan. This is a significant impact.

#### **Level of Significance Before Mitigation: Significant.**

To mitigate this impact, the City will require the applicant to implement Mitigation Measure TT-12a and the City will implement Mitigation Measure TT-12b.

*Mitigation Measure TT-12a: Construct a roadway connection between the project and the Eskaton at Spanish Hill project as described in the project alternative.*

The City will require the project applicant to construct a roadway connection between the project and the Eskaton at Spanish Hill project, consistent with the Blairs Lane Connection Alternative evaluated in Chapter 6.

The City will require the project applicant to implement the mitigation measures identified in analysis of the Blairs Lane Connection Alternative evaluated in Chapter 6. If constructed, this roadway connection would change the travel patterns associated with this project; therefore, the mitigation measures identified in the analysis of the project alternative should be implemented.

*Mitigation Measure TT-12b: Amend the City's Master Street Plan in such a way that the Lumsden Ranch Project is consistent with the amended plan.*

The City will amend its Master Street Plan to remove the requirement for the roadway connections between the project area and the surrounding areas that are not included in the Lumsden Ranch Plan.

**Level of Significance After Mitigation: Less than significant because the project would be consistent with the City's General Plan with implementation of Mitigation Measures TT-12a and TT-12b.**

### *Access, Design, and Parking*

Project transportation access, design, and parking were evaluated to identify impacts in accordance with the thresholds of significance. The following elements of access, design, and parking would not result in a significant impact.

- An adequate number of access points are provided. One access will be provided from Broadway, and one access will be provided from Barrett Drive.
- The project would provide adequate access to adjacent or nearby uses, except Lumsden Park and Louisiana Schnell School (see Impact TT-14). Access to other attractions in the area, including shopping, schools, employment, and recreation, would be adequately provided by the project's connections to Broadway and Barrett Drive.
- The project would not encourage through-traffic within a residential area, except within the project on Canyon View Drive between Broadway and Barrett Drive (see Impact TT-15). The project would add traffic to Barrett Drive, Country Club Drive, and Airport Road, which all have fronting residential properties; however, this traffic would be local traffic traveling to destinations in the area and would not be through traffic.
- The project would include adequate vehicle and bicycle parking capacity, which will include garages and driveways in accordance with typical residential projects.
- The project would provide a sidewalk on at least one side of all streets developed as part of the project.
- The project would not interfere with any specifically planned roadway improvements that are documented in regional and/or local transportation planning documents. As identified in Impact TT-12, the project is not consistent with the City's Master Street Plan; however, this plan is schematic in nature and does not represent specifically planned roadway improvements, which are in view by this significance threshold.

**Impact TT-13: Project access, provided by Canyon View Drive, may not accommodate all modes of travel.**

Canyon View Drive would provide access to the project for vehicles, bicycles, and pedestrians. Travel to and from the site would be oriented predominately toward Broadway; therefore, the portion of Canyon View Drive between Broadway and the project's first internal intersection must be designed to fully accommodate all modes of travel. This is a significant impact because failure to design Canyon View Drive appropriately for all modes of travel would not adequately provide access to the project site.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-13a: Construct the Canyon View Drive/Broadway intersection with stop-sign control on Canyon View Drive and with two lanes on Canyon View Drive approaching Broadway, one left-turn lane and one right-turn lane.*

The City will require the project applicant to construct the Canyon View Drive/Broadway intersection with stop-sign control on Canyon View Drive and with two lanes on Canyon View Drive approaching Broadway, one left-turn lane and one right-turn lane.

Constructing the Canyon View Drive/Broadway intersection as described above would provide adequate vehicular access to and from the project area. In addition, this intersection would operate acceptably at LOS C or better.

*Mitigation Measure TT-13b: Construct Canyon View Drive with a Class II bike lane in both directions between Broadway and the project's first internal intersection.*

The City will require the project applicant to construct Canyon View Drive with a Class II bike lane in both directions between Broadway and the project's first internal intersection. Constructing Canyon View Drive with Class II bike lanes would provide adequate bicycle access to and from the project area.

*Mitigation Measure TT-13c: Construct Canyon View Drive with a sidewalk on both sides of the street between Broadway and the project's first internal intersection.*

The City will require the project applicant to construct Canyon View Drive with a sidewalk on both sides of the street between Broadway and the project's first internal intersection. Constructing Canyon View Drive with sidewalks would provide adequate pedestrian access to and from the project area.

**Level of Significance After Mitigation: Less than significant because Canyon View Drive would be appropriately designed to accommodate all modes of travel.**

**Impact TT-14: The project would not provide adequate pedestrian access to Lumsden Park or Louisiana Schnell Elementary School.**

The project is a residential project that would create pedestrian demand to nearby recreational and educational uses (i.e., Lumsden Park and Louisiana Schnell School). As discussed in the Setting, Wiltse Road does not have sidewalks or any other adequate

pedestrian facility to connect pedestrians to Louisiana Schnell Elementary school via Broadway and Schnell School Road. As a result, the Lumsden Ranch Project does not include pedestrian facilities to serve the pedestrian demand that is generated by the project and traveling to these destinations. This is a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-14a: Construct a pedestrian-only access to Wiltse Road to/from the project, and construct a sidewalk along the east side of Wiltse Road between the project and Lumsden Park.*

Given the proximity of the project to Lumsden Park and the pedestrian demand that will result from the project, a direct pedestrian connection via Wiltse Road is needed to serve this demand.

The City will require the project applicant to construct a pedestrian only access to Wiltse Road to/from the project, and construct a sidewalk along the east side of Wiltse Road between the project and Lumsden Park.

In the event that additional right-of-way is needed, the project applicant would be responsible for acquiring the needed right-of-way. The project applicant may petition the City to acquire the right-of-way, and the City may choose to exercise its power of eminent domain at its discretion. In the event the City agrees to obtain required right-of-way, the project applicant would be responsible for all costs associated with its acquisition. Since the project applicant does not have the power of eminent domain and the City may choose not to exercise their power, there is no guarantee that the necessary right-of-way would ultimately be obtained.

*Mitigation Measure TT-14b: Pay a fair-share contribution toward construction of a path/sidewalk along Wiltse Road between Lumsden Park and Broadway.*

The pedestrian connection along Wiltse Road to Lumsden Park identified in Mitigation Measure TT-14a needs to be extended along Wiltse Road to Broadway since Wiltse Road would provide the most direct pedestrian access to Broadway, which provides a connection to Schnell School Road for access to Louisiana Schnell Elementary School. The Lumsden Ranch Project would be within the attendance boundary for this school; therefore, pedestrian demand between Lumsden Ranch and the school will result from the project.

The City will require the project applicant to pay a fair-share contribution toward construction of a path/sidewalk along Wiltse Road between Lumsden Park and Broadway. This improvement is identified in the City of Placerville Pedestrian Circulation Plan. However, the City does not have a mechanism in place to fund the remainder of this improvement; therefore, there would be no guarantee that a path or sidewalk would be constructed within a reasonable period of time. In addition, additional right-of-way may be needed to construct the path, and there is no guarantee that the necessary right-of-way would ultimately be obtained.

**Level of Significance After Mitigation: Significant and unavoidable because right-of-way may need to be obtained and there is no mechanism in place to secure funding for the connection to Broadway. As a result, there is no guarantee that the physical improvements identified in this mitigation measure would be implemented within a reasonable amount of time. However, if the physical improvements identified in Mitigation Measures TT-14a and TT-14b are implemented, adequate access to Lumsden Park and Louisiana Schnell Elementary School would be provided.**

**Impact TT-15: The project would encourage through-traffic within a residential neighborhood.**

Canyon View Drive would provide a roadway connection through the Lumsden Ranch Project, which connects Broadway and Barrett Drive. Residents on Barrett Drive would use this new roadway to travel to/from Broadway, thereby creating through traffic within the residential neighborhood that would be constructed as part of the Lumsden Ranch Project. Moreover, Canyon View Drive would attract through traffic traveling between Broadway and Cedar Ravine Road as an alternative to Country Club Drive and Airport Road. This is a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-15: Construct traffic-calming devices along Canyon View Drive as approved by the City's Public Works Department.*

The City will require the applicant to construct traffic calming devices along Canyon View Drive in accordance with the traffic calming plan shown in Figure 3.10-15. The project applicant shall revise the proposed site plan to show the location, type, and design of all traffic-calming devices. The applicant may propose an alternative traffic-calming plan that is functionally equivalent to the plan shown in Figure 3.10-15 subject to the approval of the City's Public Works Department.

**Level of Significance After Mitigation: Less than significant because the constructed traffic-calming devices will discourage through traffic from traveling through the Lumsden Ranch residential neighborhood.**

**Impact TT-16: The project would result in non-standard roadway improvements.**

Canyon View Drive between Broadway and the first internal intersection within Lumsden Ranch is proposed with a 50-foot-wide right-of-way. However, a 56-foot-wide right-of-way is needed to satisfy the Street Standards contained in Part I of the City of Placerville General Plan Policy Document. All other on-site roadway improvements would satisfy design standards; however, the site improvement plans have not yet been finalized and should be reviewed before issuance of project grading and/or building permits. In addition, the project will be required to construct various off-site roadway improvements, as identified above. It is possible that the roadway improvements ultimately proposed may not comply with design standards. This is a significant impact.

**Level of Significance Before Mitigation: Significant.**

The City will require the applicant to implement Mitigation Measure TT-16a, and the City will implement Mitigation Measure TT-16b.

*Mitigation Measure TT-16a: Revise the proposed site plan to include a 56-foot-wide right-of-way for Canyon View Drive between Broadway and the first internal intersection within the project.*

The applicant will revise the proposed site plan to satisfy the Street Standards contained in Part I of the City of Placerville General Plan Policy Document

*Mitigation Measure TT-16b: Review design plans for all new and reconstructed roadways to ensure applicable design standards are satisfied, to the satisfaction of the City's Public Works Department and/or Caltrans, as appropriate.*

The City will review design plans for all new and reconstructed roadways to ensure applicable design standards are satisfied, to the satisfaction of the City's Public Works Department and/or Caltrans, as appropriate.

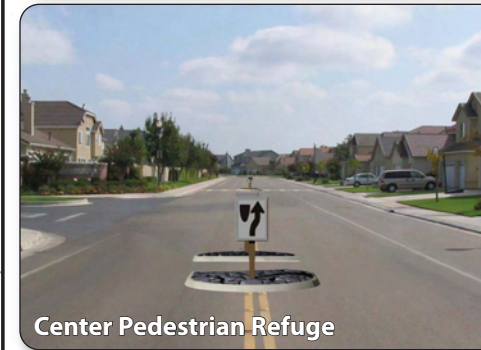
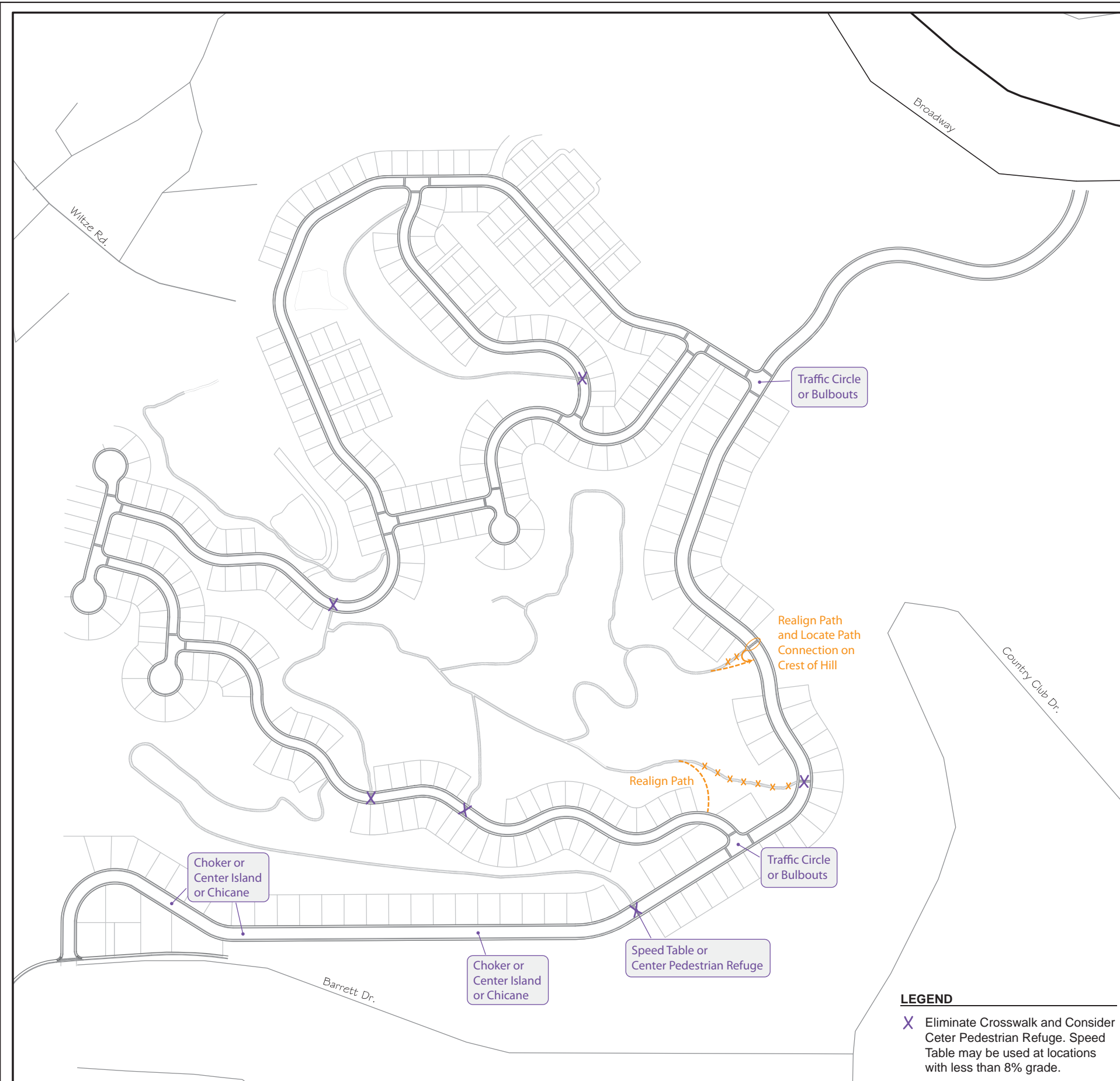
New roadways and roadways reconstructed as a result of the project must satisfy design standards pursuant to the California Manual on Uniform Traffic Control Devices, Highway Design Manual, and/or Street Standards contained in Part I of the City of Placerville General Plan Policy Document, as appropriate. Adherence to the design standards will ensure that all roadway improvements are standard, which would result in a less-than-significant impact.

**Level of Significance After Mitigation: Less than significant because roadway improvements would satisfy applicable design standards.**

### *Safety*

Project-related transportation safety issues were evaluated to identify impacts in accordance with the thresholds of significance. The following elements of safety would not result in a significant impact.

- The project will not substantially increase hazards due to incompatible uses. The project is a typical residential project that is consistent with the character of the area surrounding the project area.
- The project area will provide adequate emergency access and two points of access for public service providers. To enhance fire protection, each dwelling unit will include a sprinkler system.
- The project would not interfere with an emergency response plan or emergency evacuation plan. Adjacent to the project area, Broadway serves as an alternative to U.S. 50 for emergency response and evacuation. The project would result in a new intersection on Broadway at Canyon View Drive, and increased traffic levels along Broadway and its intersection with Airport Road. However, the operations analysis described above shows that traffic will continue to flow freely with negligible increases in delay on Broadway adjacent to the project area.



**Figure 3.10-15  
Conceptual Traffic  
Calming Plan and On-Site  
Recommendations**







**Impact TT-17: The project may increase hazards due to a design feature such as sharp curves or dangerous intersections.**

The topography of the project area is steep, hilly, and densely vegetated. As a result, new roadways on the project area may be geometrically constrained and may include features such as sharp curves, excessive grades, and limited sight lines. However, the project should adhere to applicable design standards to the greatest degree possible. This is a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-17: Review design plans for all new and reconstructed roadways to ensure applicable design standards are satisfied, to the satisfaction of the City's Public Works Department and/or Caltrans, as appropriate.*

The City will implement Mitigation Measure TT-16b.

Mitigation Measure TT-16b require adherence to applicable design standards. New and reconstructed roadways constructed as a result of the project must satisfy design standards pursuant to the California Manual on Uniform Traffic Control Devices, Highway Design Manual, and/or Street Standards contained in Part I of the City of Placerville General Plan Policy Document, as appropriate. Design standards provide criteria for the geometric characteristics of roadways such as curve radius, maximum grade, and clear sight lines. Adherence to the relevant design standards will ensure that hazardous design features are avoided.

**Level of Significance After Mitigation: Less than significant because roadway improvements would satisfy applicable design standards, which include safety factors.**

**Impact TT-18: The project may increase hazards due to a design feature such as unnecessary or inappropriate crosswalk and trailhead locations.**

The project site plan shows an on-site trail system that connects to the on-site roadway system. Several of its connection points are at mid-block locations, and a crosswalk is shown at these locations. Crosswalks are not needed at these locations. In addition, the two trailhead locations on Canyon View Drive that are between the two on-site intersections are located in inappropriate locations given the horizontal and vertical curvature of the roadway. This is a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-18: Revise the site plan to eliminate unnecessary crosswalks and to relocate inappropriate trailhead locations.*

The City will require the applicant to revise the proposed site plan to eliminate unnecessary crosswalks and to relocate inappropriate trailhead locations as shown in Figure 3.10-15. The project applicant may revise the proposed trail system with trailhead locations subject to approval of the City's Public Works department.

**Level of Significance After Mitigation: Less than significant because the revised site plan will not contain unnecessary or inappropriate crosswalk or trailhead locations.**

**Impact TT-19: The project may fail to provide adequate sight distances at intersections and/or driveways.**

The topography of the project area is steep, hilly, and densely vegetated. As a result, new roadways on the project area will be geometrically constrained and may include intersections with limited sight lines. This is a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-19: Review design plans for all new and reconstructed roadways to ensure applicable design standards are satisfied, to the satisfaction of the City's Public Works Department and/or Caltrans, as appropriate.*

The City will implement Mitigation Measure TT-16b.

Mitigation Measure TT-16b requires adherence to applicable design standards. New and reconstructed roadways constructed as a result of the project must satisfy design standards pursuant to the California Manual on Uniform Traffic Control Devices, Highway Design Manual, and/or Street Standards contained in Part I of the City of Placerville General Plan Policy Document, as appropriate. Design standards provide criteria for intersection sight lines. Adherence to the relevant design standards will ensure that inadequate sight distances are avoided.

**Level of Significance After Mitigation: Less than significant because intersection designs would satisfy applicable design standards, which include sight distance.**

#### *Alternative Transportation Modes*

Project impacts on alternative transportation modes were evaluated in accordance with the thresholds of significance. The project would not significantly affect the following elements of transit, bicycle, and pedestrian systems.

- The project would not conflict with adopted policies, plans, or programs supporting alternative transportation.
- The project would not disrupt existing transit services or facilities.
- The project would not interfere with planned transit services or facilities.
- The project would not disrupt existing bicycle or pedestrian facilities.

**Impact TT-20: The project would create demand for transit services above the capacity that is provided or planned.**

The project is a residential project that will create demand for transit services by its residents. El Dorado Transit provides fixed-route and paratransit services upon request along Broadway near the project. However, the nearest bus stop would be more than 0.5 mile from the majority of homes within the project, which is a farther walking distance

that most people would travel to access transit. Further, no service expansions are planned in this area. As a result, transit demand created by the project would not be met by the transit services provided or planned. This is a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-20a: Construct a bus stop within 250 feet of the intersection of Broadway with Canyon View Drive.*

The City will require the project applicant to construct a bus stop within 250 feet of the intersection of Broadway with Canyon View Drive.

A bus stop located at the intersection of Broadway with Canyon View Drive would be located within 0.5 mile of the majority of homes within the project. No route or service changes would be required to serve a bus stop at this location.

*Mitigation Measure TT-20b: Provide service to the bus stop constructed at the Canyon View Drive/Broadway intersection.*

El Dorado Transit would need to add the newly constructed bus stop to their service area. El Dorado Transit has committed to providing service to this bus stop if the project is approved and the bus stop is constructed.

**Level of Significance After Mitigation: Less than significant because the transit demand created by the project would be adequately served.**

**Impact TT-21: The project may interfere with planned bicycle facilities.**

The City of Placerville Non-Motorized Transportation Plan identifies planned Class II bike lanes on Broadway between Schnell School Road and Point View Drive. Construction of a new intersection at Broadway/Canyon View Drive could interfere with the implementation of the planned bike lanes if the intersection does not accommodate bike lanes. In addition, bike lanes are planned on Mosquito Road between Dimity Lane and Broadway and they are planned on Schnell School Road between Broadway and Carson Road, which are locations at which roadway improvements are identified to mitigate operational impacts. This is a significant impact because these actions may interfere with planned bicycle facilities.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-21a: Include provisions for Class II bike lanes on Broadway at its intersection with Canyon View Drive.*

The City will require the project applicant to include provisions for Class II bike lanes in the improvements constructed on Broadway as part of its new connection with Canyon View Drive including adequate right-of-way to accommodate standard vehicular and bicycle lane widths. This mitigation measure ensures that the project would not interfere with planned bicycle facilities.

*Mitigation Measure TT-21b: Include provisions for Class II bike lanes on Mosquito Road and Schnell School Road as part of the design for mitigation measures that are ultimately constructed at the following intersections: Schnell School Road/U.S. 50 westbound ramps, Schnell School Road/U.S. 50 eastbound ramps, Schnell School Road/Broadway, and Mosquito Road/Broadway.*

The City will ensure that provisions for Class II bike lanes are provided in the improvements that are ultimately constructed on Mosquito Road and Schnell School Road at the following intersections: Schnell School Road/U.S. 50 westbound ramps, Schnell School Road/U.S. 50 eastbound ramps, Schnell School Road/Broadway, and Mosquito Road/Broadway. Provisions will include adequate right-of-way to accommodate standard vehicular and bicycle lane widths.

This mitigation measure ensures that the mitigation measures implemented in response to the Lumsden Ranch project would not interfere with planned bicycle facilities.

**Level of Significance After Mitigation: Less than significant because the project would not interfere with planned bicycle facilities.**

**Impact TT-22: The project may interfere with planned pedestrian facilities.**

The City of Placerville Pedestrian Circulation Plan identifies planned sidewalks on Broadway between Schnell School Road and Point View Drive and on Schnell School Road between Broadway and the north side of U.S. 50. Construction of a new intersection at Broadway/Canyon View Drive and improvements at the Schnell School Road System could interfere with the implementation of the planned sidewalks if the new and/or widened intersections do not accommodate it. This is a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-22a: Include provisions for sidewalks in the improvements constructed on Broadway at its intersection with Canyon View Drive.*

The City will require the project applicant to include provisions for sidewalks in the improvements constructed on Broadway at its intersection with Canyon View Drive and within the Schnell School Road System, including adequate right-of-way to accommodate standard sidewalk widths and crosswalks. This mitigation measure ensures that the project would not interfere with planned pedestrian facilities.

*Mitigation Measure TT-22b: Include provisions for sidewalks in the improvements that are ultimately constructed within the Schnell School Road System.*

The City will ensure that provisions for sidewalks are provided in the improvements that are ultimately constructed within the Schnell School Road System, including adequate right-of-way to accommodate standard sidewalk widths and crosswalks. This mitigation measure ensures that the project would not interfere with planned pedestrian facilities.

**Level of Significance After Mitigation: Less than significant because the project would not interfere with planned pedestrian facilities.**

### *Construction*

Project impacts during construction were evaluated in accordance with the thresholds of significance.

#### **Impact TT-23: The project would create temporary but prolonged construction-related impacts, potentially including congestion.**

Construction of the project would create a temporary but prolonged impact as a result of construction potentially including congestion due to lane closures, hazards to bicycles and/or pedestrians, damage to the roadbed, and increased truck traffic. This is a significant impact.

Construction of new sewer facilities within Broadway, Wiltse Road, and the Lumsden Park access road would create a temporary but prolonged impact as a result of construction. In addition, construction of the roadway improvements identified in mitigation measures throughout this chapter would have physical impacts on the environment during construction. Impacts related to these various construction activities would potentially include congestion due to lane closures, hazards to bicycles and/or pedestrians, damage to the roadbed, degraded access to adjacent parcels, and increased truck traffic. This is a significant impact.

#### **Level of Significance Before Mitigation: Significant.**

*Mitigation Measure TT-23: Develop and implement a construction traffic management plan to the satisfaction of the City's Public Works department.*

The City will require the project applicant to develop and implement a construction traffic management plan to the satisfaction of the City's Public Works department. The construction management plan would minimize transportation impacts of project and infrastructure construction. The plan should include, but need not be limited to, the following elements:

- Permissible work hours and work days
- Permissible lane closures and restrictions to their use
- Measures to accommodate bicycle and pedestrian travel on public right-of-way on or adjacent to construction activities
- A monitoring program to identify damage to area roadways caused by project-related construction, and a mechanism to construct or fund repairs to damaged roadways
- Permissible truck routes for access to and from the project area

**Level of Significance After Mitigation: Less than significant because implementation of a construction traffic management plan would ensure that construction-related impacts are minimized.**

### **Significant and Unavoidable Impacts**

**Impact TT-1:** The project would unacceptably degrade traffic operations at the Schnell School Road/U.S. 50 westbound ramps intersection.

**Impact TT-2:** The project would unacceptably exacerbate degraded traffic operations at the U.S. 50 eastbound ramps/Broadway intersection.

**Impact TT-3:** The project would unacceptably degrade traffic operations at the Schnell School Road/U.S. 50 westbound ramps intersection.

**Impact TT-4:** The project would unacceptably degrade traffic operations at the Schnell School Road/U.S. 50 eastbound ramps intersection.

**Impact TT-5:** The proposed and related projects would unacceptably degrade traffic operations throughout the Schnell School Road/Broadway/Wiltse Road/U.S. 50 ramps roadway system (i.e., the Schnell School Road System)

**Impact TT-6:** The proposed and related projects would unacceptably degrade traffic operations at the Mosquito Road/Broadway intersection.

**Impact TT-8:** The proposed and related projects would unacceptably degrade traffic operations at the U.S. 50 eastbound ramps/Broadway intersection.

**Impact TT-9:** The proposed and related projects would unacceptably degrade traffic operations at the Bedford Avenue/U.S. 50 intersection.

**Impact TT-10:** The proposed and related projects would unacceptably degrade traffic operations at the Point View Drive/U.S. 50 westbound ramps intersection.

**Impact TT-11:** The proposed and related projects would unacceptably degrade traffic operations at the Point View Drive/U.S. 50 eastbound ramps intersection.

**Impact TT-14:** The project would not provide adequate pedestrian access to Lumsden Park or Louisiana Schnell Elementary School.

### **3.11 AIR QUALITY**

This section describes current air quality conditions in the project vicinity and identifies sensitive land uses that could be affected by air pollution. The impact analysis discusses the expected emissions associated with the project and evaluates potential effects on project residents and sensitive receptors in the vicinity. Mitigation measures are identified for significant effects, followed by identification of the residual impact significance after mitigation measures are implemented. An analysis of the project's contribution to global climate change is included in Chapter 5 of this EIR.

### 3.11.1 Setting

#### Regulatory Setting

##### Federal

The **Federal Clean Air Act** (FCAA; 42 USC 7401 et seq.) requires the EPA to set National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. NAAQS have been established for ozone, carbon monoxide (CO), nitrogen dioxide (N<sub>2</sub>O), sulfur dioxide, respirable particulate matter less than 10 microns and 2.5 microns in diameter (PM<sub>10</sub> and PM<sub>2.5</sub>, respectively), and lead. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction. These pollutants are called “criteria” air pollutants because standards have been established for each of them to meet specific public health and welfare criteria set forth in the FCAA. The primary NAAQS are intended to protect, with an adequate margin of safety, those persons most susceptible to respiratory distress, such as people suffering from asthma or other illness, the elderly, very young children, or others engaged in strenuous work or exercise.

Pursuant to the 1990 **Federal Clean Air Act Amendments** (FCAAA), the EPA classifies air basins (or portions thereof) as “attainment” or “non-attainment” for each criteria air pollutant, based on whether or not the NAAQS are achieved. The FCAA required each state to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The FCAAA added requirements for states containing areas that violate the NAAQS to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The EPA has responsibility to review all state SIPs to determine if they conform to the mandates of the FCAAA and will achieve air quality goals when implemented. If the EPA determines a SIP to be inadequate, it may prepare a Federal Implementation Plan (FIP) for the non-attainment area and may impose additional control measures. Failure to submit an approvable SIP or to implement the plan within mandated timeframes can result in sanctions being applied to transportation funding and stationary air pollution sources in the air basin.

##### State

Under the **California Clean Air Act** (CCAA; Chapter 1568 of the Statutes of 1988), patterned after the FCAA, areas have been designated as attainment or non-attainment with respect to the California Ambient Air Quality Standards (CAAQS). The CAAQS are more stringent than the national standards and include air quality standards for some pollutants for which there is no corresponding national standard. The California Air Resources Board (CARB) manages air quality, regulates mobile emissions sources, and oversees the activities of county and regional Air Pollution Control Districts (APCDs) and Air Quality Management Districts (AQMDs). CARB regulates local air quality indirectly by establishing state ambient air quality standards and vehicle emissions and fuel standards, and by conducting research, planning, and coordinating activities.

### *CARB Handbook*

In April 2005, CARB published *Air Quality and Land Use Handbook: A Community Health Perspective*. This handbook is intended to give guidance to local governments in the siting of sensitive land uses, such as residences, schools, daycare centers, playgrounds, or medical facilities, near sources of air pollution. Recent studies have shown that public exposure to air pollution can be substantially elevated near freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities. A key air pollutant common to many of these sources is particulate matter from diesel engines. Diesel particulate matter (DPM) is a carcinogen identified by CARB as a toxic air contaminant (TAC) and contributes to particulate pollution statewide. The project does not include siting of sensitive receptors that would be considered inconsistent with the handbook; therefore, this issue is not discussed further in the EIR.

### *Attainment Status*

The current attainment status for the project area is shown in Table 3.11-1.

**Table 3.11-1. Project Area Attainment Status**

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone – one hour	No Federal Standard <sup>1</sup>	Non-attainment
Ozone – eight hour	Non-attainment	Non-attainment
PM10	Unclassified	Non-attainment
PM2.5	Unclassified/Attainment	Unclassified
CO	Unclassified/Attainment	Unclassified
Nitrogen Dioxide	Unclassified/Attainment	Attainment
Sulfur Dioxide	Unclassified	Attainment
Lead (particulate)	Attainment	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility-Reducing Particles	No Federal Standard	Unclassified

<sup>1</sup> Federal One-Hour Ozone National Ambient Air Quality Standard was revoked on June 15, 2005.

Source: CARB 2006a

### Regional

The **Sacramento Area Regional Ozone Attainment Plan** (Sacramento Metropolitan Area Quality Management District [SMAQMD] 1994) was developed cooperatively with all the districts in the Sacramento Region (El Dorado County AQMD, Feather River AQMD, Placer County APCD, Sacramento Metropolitan AQMD, and Yolo-Solano AQMD). The Clean Air Plan was adopted in 1994 in compliance with the 1990 Amendments to the FCAA. At that time, the region could not show they would meet the federal one-hour ozone standard by 1999. In exchange for moving the deadline to 2005, the region accepted a designation of “severe nonattainment” for the federal one-hour



ozone standard, with additional emission requirements on stationary sources. As a "severe nonattainment" area, the Sacramento Region is required to submit a rate-of-progress milestone evaluation per Section 182(g) of the FCAA. While the region has made significant progress in reducing ozone, a problem has arisen with regard to another FCAA requirement. The region's transportation plan must "conform," or show that it does not harm the region's chances of reaching the ozone standard. Regions with a SIP, such as this one, have a "motor vehicle emissions budget" tied to the SIP. Transportation planners must analyze the emissions anticipated from transportation plans and transportation improvement programs and ensure that they remain within the SIP's emissions budget (this is called demonstrating conformity). If they do not update the Plan, conformity will lapse, and transportation funding can be withheld from all but exempt projects.

The most recent rate-of-progress report, **Sacramento Regional Non-attainment Area 8-Hour Ozone Rate-of Progress Plan Final Report** (SMAQMD 2006), evaluates how existing control strategies and already approved control measure commitments will provide the necessary future emission reductions to meet the federal Clean Air Act requirements for reasonable further progress during 1990–1996 and 2002–2008. In addition, this Plan includes an updated emission inventory and sets new motor vehicle emission budgets for transportation conformity purposes.

### Local

In addition to working with other air districts, the El Dorado County AQMD (EDCAQMD) prepared the **2003 Triennial Assessment and Plan Update** (EDCAQMD 2003) to address:

- Information about emission reductions achieved during the 2000–2002 period,
- District emission inventory and emission forecasts,
- Current air quality data and analysis of air quality trends, and
- Proposed Triennial Commitments for 2004–2006.

The District also prepared the **Reasonably Available Control Technology (RACT) State Implementation Plan (SIP) Update Analysis Staff Report** (EDCAQMD 2006a) to identify reasonable technologies for major sources emitters of volatile organic compounds (VOCs) and nitrogen oxides (NO<sub>x</sub>) to implement and that would help achieve attainment of the NAAQS. The RACT SIP submittal is in addition to the area's 8-hour Ozone Attainment Demonstration Plan, which is also a SIP submittal.

The EDCAQMD has developed rules to limit the quantity of pollutants in the area. Rules relevant to this project are briefly described below (EDCAQMD 2006b).

**EDCAQMD Rule 215** establishes a limit of the quantity of VOCs in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within EDCAQMD.

**EDCAQMD Rules 223-1 and 223-2** establish limits of fugitive dust emissions from construction, and construction related activities within EDCAQMD that may not or may, respectively, contain asbestos.

Asbestos is listed as a TAC by CARB and a Hazardous Air Pollutant (HAP) by EPA. It is of special concern in El Dorado County because it occurs naturally in surface deposits of several types of ultramafic minerals. Asbestos emissions can result from grading activities, the sale or use of asbestos-containing materials, road surfacing with such materials, and surface mining. The District has not yet adopted any separate regulation governing asbestos. However, a countywide ordinance was adopted on January 4, 2000 (Ordinance 4548, codified as Chapter 8.44 of the El Dorado County Ordinance Code) adopting the CARB asbestos content level as a “permissible asbestos content level.” The ordinance requires compliance with this level in the use and sale of asbestos-containing materials within the county. For grading, excavation, and construction activities, the ordinance requires an Asbestos Hazard Dust Mitigation Plan in all areas of the county identified as potentially having asbestiform minerals; the mitigation measures include extensive wetting, covering, and other actions.

As required by ECAPCD Rule 223-2, any NOA discovered on a construction site must be reported to the EDCAQMD no later than the next business day. At a minimum, abatement requirements may include:

- Limitations on opacity and distance of visible emissions
- Limitations on vehicle speeds (15 miles per hour)
- Limitations on construction activities during windy periods
- Asbestos warning signs at the entrance to the project,
- Applicable BMPs
- Prevention and clean-up of track-out (e.g., use of street sweepers and water trucks)
- Documentation of on-site or off-site disposition of excavated soils
- Requirement that projects must be covered with vegetative cover, non-asbestos-containing material at required depths, or paving, building foundations, concrete or retaining walls within 30 days following the end of soil-disturbing activities

Additional requirements of EDCAQMD Rule 223 include an Asbestos Dust Mitigation Plan Application and fee. Approval by the EDCAQMD is required prior to the start of project construction.

**EDCAQMD Rule 224 – Cutback and Emulsified Asphalt Paving Materials** prohibits and limits the discharge of VOCs from cutback and emulsified asphalt for paving, road construction, or road maintenance within EDCAQMD.

**EDCAQMD Rule 239 – Natural Gas–Fired Residential Water Heaters** limits emission of NOx from natural gas–fired residential water heaters within EDCAQMD.

In addition, permits are required from the EDCAQMD for stationary diesel-fueled equipment rated at or greater than 50 horsepower and for burning of vegetative wastes resulting from land-clearing activities (EDCAQMD 2007).

The **City of Placerville General Plan** includes the following policies to protect air quality in the Placerville area:

- The City shall monitor research on the links between air pollution and the use of fireplaces and wood-burning stoves. If this link is demonstrated, and if federal and state air quality standards for particulates are exceeded in the Placerville area, the City shall undertake educational programs and regulatory actions, as necessary, to minimize emission from these sources. The Oregon State Wood-burning Stove Standards shall be used as guidelines until the State of California adopts wood-burning stove standards.
- The City shall discourage backyard burning of debris (City of Placerville 1989a).

## **Environmental Setting**

Air pollution is directly related to a region's topography, climate, and meteorology. These attributes for the project area are described below.

### Topography

EDCAQMD has two distinct air quality settings and thus has two air basins: the Mountain Counties Air Basin and the Lake Tahoe Air Basin. The western portion of the County, which includes Placerville, is located in the Mountain Counties Air Basin (MCAB). The MCAB is defined by the Sierra Nevada mountain range and varies in elevation from sea level to 10,000 feet, creating a variable topography and climate. Precipitation levels tend to be higher in the higher mountain elevations and decline rapidly toward the western portion of the basin, where elevations are lower.

The varied topography and meteorology of the MCAB affects air flow and tends to hinder dispersion, resulting in shallow vertical mixing and areas of high pollutant concentrations. In the winter, conditions can lead to CO "hotspots" along heavily traveled roads and at busy intersections. During the summer, conditions can lead to the formation of ozone, but because of its long formation time, ozone is a regional pollutant rather than a local hotspot problem. Also in the summer, upwind valley air brings pollutants from the Bay Area and the Sacramento and San Joaquin valleys. Transport of pollutants from these other areas result in violations of the state and federal ozone AAQS in the MCAB (EDCAQMD 2002).

### Climate and Meteorology

In general, the climate in the project area includes hot, dry summers and cool, rainy winters. During the year, the temperatures can range from 25 to 110 degrees Fahrenheit, with average summer highs usually in the 90s and average winter lows in the 30s. Average annual rainfall is about 39 inches, and average annual snowfall is about 3 inches. The prevailing winds are moderate in strength and generally originate from the southwest.

### Local Air Quality

El Dorado County is designated as non-attainment with federal and state ozone standards (Table 3.11-1). Ozone violations within the MCAB are primarily due to the transport of pollutants from the Bay Area, Sacramento Metropolitan area, and San

Joaquin Valley, as well as from the use of internal combustion engine, wood-burning stoves, fireplaces, and occasionally due to smoke from nearby wild fires. El Dorado County is also in non-attainment for the state 24-hour and annual average PM10 standards, unclassified for the federal PM10 standards and state annual PM2.5 standard, and unclassified/attainment with federal PM2.5 standards.

Air quality in the project area is representative of data recorded at the Placerville–Gold Nugget Way station, located about 3 miles west of the project area. Table 3.11-2 summarizes the highest average ozone and particulate concentrations from 2004 through 2006 and compares them with the federal and state standards. State ozone standards were exceeded from nine to 23 days out of the year between 2004 and 2006. CO and PM10 standards for the same time period were not exceeded. Descriptions of the various pollutants and their effects on the environment are provided below.

**Table 3.11-2. Summary of Air Quality Monitoring Data for the Project Area, 2004–2006**

Pollutant	State Standard	National Standard	Pollutant Concentration by Year <sup>a</sup>		
			2004	2005	2006
<b>Ozone</b>					
Highest one-hour average, ppm	0.09	0.12 <sup>b</sup>	<b>0.106</b>	<b>0.114</b>	<b>0.114</b>
Days over State Standard			9	17	23
Days over National Standard			0	0	0
Highest eight-hour average, ppm	0.07	0.08	<b>0.095</b>	<b>0.104</b>	<b>0.102</b>
Days over National Standard			7	16	20
<b>CO</b>					
Highest eight-hour average, ppm	9	20	4.39	0.68	NA
Days over State Standard			0	0	NA
Days over National Standard			0	0	NA
<b>PM10</b>					
Highest 24-hour average, $\mu\text{g}/\text{m}^3$	50	150	28	27	34
Days over State Standard			0	0	0
Days over National Standard			0	0	0
Annual average, $\mu\text{g}/\text{m}^3$	20	50	15.4	13.5	14.8

Note: **Bold** values are in excess of applicable standard. NA = Not applicable or not available.

<sup>a</sup> Data were collected at the Placerville-Gold Nugget Station approximately 3 miles west of the project area.

<sup>b</sup> Federal One Hour Ozone National Ambient Air Quality Standard was revoked on June 15, 2005.

Source: CARB 2006b

## **Asbestos**

Asbestos is of special concern in El Dorado County because NOA is often found in the Sierra Foothills. The map of Asbestos Review Areas, Western Slope, County of El Dorado indicates the project area is located within a quarter mile buffer zone for areas more likely to contain asbestos or a fault line (El Dorado County 2005).

## **Air Pollutant Effects**

### Ozone

Ozone, the main component of photochemical smog, is primarily a summer and fall pollution problem. Ozone is not emitted directly into the air, but is formed through a complex series of chemical reactions involving other compounds that are directly emitted. These directly emitted pollutants (also known as ozone precursors) include reactive organic gases (ROG) and NO<sub>x</sub>. The principal sources of ROG and NO<sub>x</sub> are the combustion of fuels and the evaporation of solvents, paints, and fuels.

Motor vehicles are often the major generator of ozone precursors. The time period required for ozone formation allows the reacting compounds to spread over a large area, producing a regional pollution problem. Ozone problems are the cumulative result of regional development patterns rather than the result of a few significant emission sources. Depending on meteorological conditions, ozone precursors can be transported well away from the source area before ozone concentrations peak.

Although ozone in the upper atmosphere protects the earth from harmful ultraviolet radiation, high concentrations of ground-level ozone can adversely affect the human respiratory system. Many respiratory ailments, as well as cardiovascular disease, are aggravated by exposure to high ozone levels. Ozone also damages natural ecosystems such as forests and foothill communities, and damages agricultural crops and some man-made materials, such as rubber, paint, and plastics. Short-term exposure to ozone can irritate the eyes and cause constriction of the airways. In addition to causing shortness of breath, ozone can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. As noted earlier, El Dorado County is designated non-attainment with state ozone standards.

### Carbon Monoxide (CO)

CO is an odorless, colorless gas that is formed by the incomplete combustion of fuels. Ambient CO concentrations normally are considered a local effect and typically correspond closely to the spatial and temporal distributions of vehicular traffic. Wind speed and atmospheric mixing also influence CO concentrations. Under inversion conditions, CO concentrations may be distributed more uniformly over an area, out some distance from vehicular sources.

CO binds strongly to hemoglobin, the oxygen-carrying protein in blood, and thus reduces the blood's capacity for carrying oxygen to the heart, brain, and other parts of the body. At high concentrations, CO can cause heart difficulties, impair mental abilities, and cause death.

CO concentrations have declined dramatically in California due to cleaner-burning motor vehicles and motor vehicle fuels. CO concentrations are expected to continue declining due to the continued retirement of older, more polluting vehicles from the mix of vehicles on the road network. The County is designated unclassified with state CO standards.

### Nitrogen Dioxide (NO<sub>2</sub>)

The major sources of NO<sub>2</sub>, essential to the formation of photochemical smog, are vehicular, residential, and industrial fuel combustion. NO<sub>2</sub> is the “whiskey brown”-colored gas evident during periods of heavy air pollution. NO<sub>2</sub> increases respiratory disease and irritation and may reduce resistance to certain infections. The County is designated in attainment with state NO<sub>2</sub> standards.

### Suspended Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>)

PM<sub>10</sub> and PM<sub>2.5</sub> consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. (A micron is one-millionth of a meter.) One common source of PM<sub>2.5</sub> is diesel emissions. Traffic generates particulate matter and PM<sub>10</sub> emissions through entrainment of dust and dirt particles that settle onto roadways and parking lots. PM<sub>10</sub> also is emitted by burning wood in residential wood stoves and fireplaces and open agricultural burning. PM<sub>10</sub> can remain in the atmosphere for up to seven days before gravitational settling, rainout, and washout remove it.

Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, and coughing, bronchitis, and respiratory illnesses in children. Mortality studies since the 1990s have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. Despite important gaps in scientific knowledge and continued reasons for some skepticism, a comprehensive evaluation of the research findings provides persuasive evidence that exposure to fine particulate air pollution has adverse effects on cardiopulmonary health (Dockery and Pope 2006).

Additional effects include reduced visibility and soiling of buildings. El Dorado County is non-attainment with the state 24-hour and annual average PM<sub>10</sub> standards.

### Toxic Air Contaminants (TACs)

Non-criteria air pollutants, or TACs, are airborne substances that are capable of causing short-term (acute) and/or long-term (chronic or carcinogenic, i.e., cancer-causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources, including gasoline stations, automobiles, diesel engines, dry cleaners, industrial operations, and painting operations. TACs are regulated separately from the criteria air pollutants at both federal and state levels. Unlike criteria pollutants, TACs are regulated on the basis of risk rather than specification of safe levels of contamination.

CARB works in partnership with the local air districts to enforce regulations that reduce TACs in the state. CARB has authority for motor vehicles, fuels, and consumer products.

CARB identifies the TACs, researches prevention or reduction methods, adopts standards for control, and enforces the standards.

CARB conducted a study to estimate cancer risks from exposure to DPM in the state and has developed a risk reduction plan (CARB 2000). The study reported that the statewide average ambient air concentration of DPM was determined by using measured ambient air concentrations of surrogates to DPM in a receptor model to estimate exposure levels. For the year 2000, the statewide average cancer risk from exposure to DPM was estimated to be 540 in a million. The study also states that cancer risks from DPM are about 70 percent of the total risk from exposure to toxic air contaminants in the ambient air, so the average total exposure to all air contaminants has a cancer risk estimated to be 770 in one million.

### Odors

Odors rarely cause any physical harm, but can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the EDCAQMD. The EDCAQMD has no rules or standards specifically related to odor emissions, other than its nuisance rules, Rule 205 (EDCAQMD 2006b). In such cases, it is appropriate that a qualitative assessment should be used to determine if odor impacts may reasonably be expected to be generated by the project.

Facilities that often result in odor complaints include wastewater treatment plants, chemical manufacturing plants, painting and coating businesses, feed lots and dairies, composting facilities, solid waste landfills, and solid waste transfer stations.

### Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others. Sensitive receptors are facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, schools, convalescent facilities, and residential areas. The closest existing residential areas are located: to the south of the project on the north side of Barrett Drive; to the southeast of the project on Airport Road; to the west of the project in the Eskaton development; and to the north of the project along Wiltse Road and adjacent streets. There are also three residences near the proposed Canyon View Drive, which is northeast of the project area and would be the primary entrance to the project. Also, a community care facility (youth group home) is located at 1364 Ruthhaven Road, about 600 feet northwest of the project area and Lumsden Park is located directly adjacent to the project area. The park is considered a sensitive receptor facility because it attracts children and the elderly.

## **3.11.2 Impact Analysis**

### **Methodology**

The impact analysis for this section was prepared using EDCAQMD requirements and air quality issues identified in Appendix G of the CEQA Guidelines. The impact analysis

involves qualitative and quantitative analysis of emissions likely to be generated during construction and a quantitative analysis of the types of emission sources associated with the project, including emissions related to motor vehicle traffic. Daily increases in emissions associated with the project were estimated using the CARB-approved URBEMIS 2007 (version 9.2.2) computer program based on the project description and default assumptions contained in the model (Appendix I).

## Levels of Significance

Adverse impacts to air quality would be considered significant if the project would:

- Conflict with or obstruct implementation of the Sacramento Region Clean Air Plan.
- Exceed the EDCAQMD's ROG and NO<sub>x</sub> thresholds of significance:
  - ROG of 82 pounds per day
  - NO<sub>x</sub> of 82 pounds per day
- Violate CAAQS or contribute substantially to an existing or projected violation of CAAQS. A project is considered to contribute substantially to an existing or projected violation of CAAQS if it emits pollutants at a level equal to or greater than 5 percent of the CAAQS.
- Exceed the CAAQS CO standards:
  - CAAQS one-hour standard of 20 parts per million (ppm)
  - CAAQS eight-hour standard of 9 ppm
- Cause or contribute significantly to a violation of the state visibility standard of 10 miles (when relative humidity is less than 70 percent).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors that would affect a substantial number of people.
- Result in a cumulative impact if one or more of the following conditions is met:
  - The project requires a change in the existing land use designation (i.e., general plan amendment, rezone), and projected emissions (ROG, NO<sub>x</sub>, CO, or PM<sub>10</sub>) are greater than the emissions anticipated for the site if developed under the existing land use designation;
  - The project would individually exceed any significance criteria established by the District;
  - For impacts that are determined to be significant by the District, the lead agency for the project does not require the project to implement the emission reduction measures contained in and/or derived from the Air Quality Attainment Plan (AQAP); or
  - The project is located in a jurisdiction that does not implement the emission reduction measures contained in and/or derived from the AQAP.

## Impacts and Mitigation Measures

**Impact AQ-1: The proposed project would not conflict with the regional air quality management plans.**



When a project is proposed in a city (or county) with a general plan that is consistent with the most recently adopted Clean Air Plan (CAP), and if the project is consistent with the land use designation of the general plan, then the project is considered consistent with applicable air quality plans and policies.

As discussed in EIR Section 3.1, the Lumsden Ranch project is consistent with the General Plan's land use designation for the project area. The applicable air quality management plan is the 1994 Sacramento Regional Clean Air Plan (also called the SIP). The City's General Plan is consistent with the CAP because data and projections from the General Plan are incorporated into the CAP. The project, therefore, is consistent with the plan. This is a less-than-significant impact because the project would not conflict with the region's air quality management plans.

While the project does generate significant air quality impacts (discussed later in this section), this does not imply that the project is inconsistent with the General Plan or with the assumptions in the CAP. As noted above, the CAP accounts for projected growth with an underlying assumption that project impacts are analyzed and mitigated on a project-by-project basis through the CEQA process.

**Level of Significance Before Mitigation: Less than significant because the project would be consistent with the regional air quality management plans.**

**Impact AQ-2: Construction activities would generate dust and produce vehicle emissions that would exceed established emissions thresholds for ROG, NOx, and PM10, and grading activities could release asbestos fibers.**

Short-term air quality impacts would occur during grading and other construction operations. Temporary impacts include:

- Clearing, grading, excavating, and using heavy equipment or trucks that create large quantities of fugitive dust, and thus PM10 and PM2.5
- Release of asbestos fibers from NOA disturbed by grading activities
- Heavy-duty construction equipment that generates DPM
- Emissions from commute vehicles for construction workers and trucks hauling equipment and materials
- Emissions from stationary construction equipment used on-site

Short-term fugitive dust may be a nuisance to those working in the project area or living in the vicinity. Fugitive dust emissions are associated with land-clearing, ground excavation, cut-and-fill operations, and truck travel on unpaved roadways. Dust emissions also vary substantially from day to day, depending on the level of activity, the specific operations, and weather. Fugitive dust from grading and construction is expected to be short-term and would cease following project completion. Dust (larger than 10 microns) generated by construction activities usually becomes more of a local nuisance than a serious health problem. Of particular health concern is the amount of PM10 generated as a part of fugitive dust emissions.

Mass grading for construction could cause release of asbestos, which is considered a TAC. Depending on the concentrations of asbestos fibers released (if any), and the distance to sensitive receptors, this would be a potentially significant impact.

Predominant winds in the area are from the southwest; therefore, sensitive receptors northeast of the project could be impacted from construction related emissions.

Construction activities include emissions associated with the transport of machinery, materials, supplies, and workers to and from the project area, and emissions produced on-site as the equipment is used. Emitted pollutants would include CO, carbon dioxide (CO<sub>2</sub>), VOCs, NO<sub>x</sub>, and PM<sub>10</sub>.

The emissions presented in Table 3.11-3 are the anticipated highest daily emissions modeled by URBEMIS 2007 for the construction phase of this project based on the amount of land that would be developed. As indicated in Table 3.11-3, construction emissions associated with the project would exceed the construction emission thresholds; therefore, air quality impacts from construction emissions would be significant.

**Table 3.11-3. Construction Emissions<sup>a</sup>**

Emissions	Pollutant (Pounds Per Day)			
	ROG	CO	NO <sub>x</sub>	PM <sub>10</sub>
Project construction emissions <sup>b</sup>	298	272	170	421
Significance thresholds	82	N/A <sup>c</sup>	82	N/A <sup>d</sup>
Are thresholds exceeded?	Yes	No <sup>e</sup>	Yes	Yes <sup>e</sup>

<sup>a</sup> Emissions were calculated using the URBEMIS 2007 emissions model for the MCAB and project-specific data provided in the project description. N/A – Not available

<sup>b</sup> Calculations include emissions from numerous sources, including site grading, construction worker trips, stationary equipment, diesel and gas mobile equipment, off-site haul import for aggregate material, asphalt off-gassing, and painting. Mobile emissions from water trucks were included.

<sup>c</sup> The EDCAQMD refers to the CAAQS for CO (9 ppm), and does not have a pounds per day limit.

<sup>d</sup> The EDCAQMD refers to the CAAQS for PM<sub>10</sub> (50 micrograms per cubic meter), and does not have a pounds per day limit.

<sup>e</sup> If ROG and NO<sub>x</sub> emissions are deemed not significant, then exhaust emissions of CO and PM<sub>10</sub> from construction equipment and exhaust emissions of all constituents from worker commute vehicles may also be deemed not significant (EDCAQMD 2002). For PM<sub>10</sub>, it was assumed the converse was true; if ROG and NO<sub>x</sub> are deemed significant, then exhaust emissions of PM<sub>10</sub> may also be deemed significant. CO is considered less than significant because of the improvements in CO levels statewide. All areas of northern and central California are in attainment for CO.

#### **Level of Significance Before Mitigation: Significant.**

*Mitigation Measure AQ-2: Comply with District Rules 215, 223-1, 223-2, and 224 to reduce construction dust that may contain asbestos through water application, stabilizing exposed soil, covering loads, periodic cleaning of paved areas, establishing speed limits, and implement EDCAQMD mitigation measures to control equipment exhaust emissions.*

URBEMIS 2007 provides a mitigation component and per the recommendation of the EDCAQMD, was used in the analysis below. The following mitigation measures were included in URBEMIS 2007 and resulted in the following emission levels shown in Table 3.11-4.

The applicant shall identify appropriate pollutant control measures on grading plans and construction contracts and ensure implementation of the measures by the construction contractor during all construction activities. These measures would be a condition of grading permits and would include, but not be limited to, the following:

- Apply soil stabilizers to inactive areas
- Replace ground cover in disturbed areas quickly
- Water exposed surfaces
- Reduce speed on unpaved roads to less than 15 mph
- Manage haul road dust
- Use low-VOC Coatings

**Table 3.11-4. Construction Emissions with Mitigation Measures<sup>a</sup>**

Emissions	Pollutant (Pounds Per Day)			
	ROG	CO	NOx	PM10
Project Construction Emissions with Mitigation Measures <sup>b</sup>	270	272	170	96
Significance Thresholds	82	N/A <sup>c</sup>	82	N/A <sup>d</sup>
Are Thresholds Exceeded? <sup>e</sup>	Yes	No	Yes	Yes <sup>f</sup>

<sup>a</sup> Emissions were calculated using the URBEMIS 2007 emissions model with the mitigation component for the Mountain Counties Air Basin and project-specific data provided in the project description.

<sup>b</sup> Calculations include emissions from numerous sources, including site grading, construction worker trips, stationary equipment, diesel and gas mobile equipment, off-site haul import for aggregate material, asphalt off-gassing, and painting. Mobile emissions from water trucks were included.

<sup>c</sup> The EDCAQMD refers to the CAAQS for CO (9 ppm), and does not have a pounds per day limit.

<sup>d</sup> The EDCAQMD refers to the CAAQS for PM10 (50 micrograms per cubic meter), and does not have a pounds per day limit.

<sup>e</sup> If ROG and NOx emissions are deemed less than significant, then exhaust emissions of CO and PM10 from construction equipment and exhaust emissions of all constituents from worker commute vehicles may also be deemed not significant (EDCAQMD 2002). For PM10, it was assumed the converse was true; if ROG and NOx are deemed significant, then exhaust emissions of PM10 may also be deemed significant. CO is considered less than significant because of the improvements in CO levels statewide. All areas of northern and central California are in attainment for CO.

<sup>f</sup> With mitigation measures, PM10 was reduced by over 90 percent, primarily due to fugitive dust mitigation measures. However, consistent with the footnote <sup>e</sup>, exhaust emissions of PM10 was deemed significant.

The EDCAQMD has noted fugitive dust PM10 emissions from construction projects may be assumed to be less than significant if the project includes mitigation measures that will prevent visible dust beyond the project property boundaries (EDCAQMD 2002). The City will require the applicant to prepare an Asbestos Dust Mitigation Plan Application for review and approval by the EDCAQMD in accordance with EDCAQMD Rule 223. The applicant shall provide proof of EDCAQMD's approval of the plan prior to issuance of grading permits by the City. The applicant shall implement all PM10 control measures

required by EDCAQMD during all construction activities. Such measures are expected to include:

- Enclosing, covering, or watering twice daily all soil piles
- Installing an automatic sprinkler system on all soil piles
- Watering all exposed soil twice daily
- Watering exposed soil with adequate frequency to keep soil moist at all times
- Watering all haul roads twice daily
- Paving all haul roads
- Maintaining at least 2 feet of freeboard on haul trucks
- Covering load of all haul/dump trucks securely

The EDCAQMD has also identified mitigation measures for equipment exhaust emissions. The City will require the applicant to implement these measures during all construction activities:

- Use low-emission on-site mobile construction equipment
- Maintain equipment in tune per manufacturer specifications
- Retard diesel engine injection timing by 2 to 4 degrees
- Use electricity from power poles rather than temporary gasoline or diesel generators
- Use reformulated low-emission diesel fuel
- Use catalytic converters on gasoline-powered equipment
- Substitute electric and gasoline-powered equipment for diesel-powered equipment where feasible
- Do not leave inactive construction equipment idling for prolonged periods (i.e., more than two minutes)
- Schedule construction parking to minimize traffic interference
- Develop a construction traffic management plan that includes but is not limited to:
  - Providing temporary traffic control during all phases of construction activities to improve traffic flow
  - Rerouting construction trucks off congested streets
  - Providing dedicated turn lanes for movement of construction trucks and equipment on-and off-site

**Level of Significance After Mitigation: The potential impact of asbestos release during ground-disturbance activities would be reduced to less than significant with the implementation of Mitigation Measure AQ-2. However, emissions of ROG and NOx would remain significant and unavoidable because with implementation of these measures, project construction pollutants would be reduced, but no feasible mitigation measures have been identified that would reduce the construction emissions on all days to levels that would not substantially contribute to potential air quality violations of ozone standards in the project vicinity.**

**Impact AQ-3: Project traffic and residential operations would result in long-term stationary and mobile source emissions that would exceed air quality thresholds for ROG, and could violate PM10 standards.**

Long-term air quality impacts would consist of mobile source emissions generated by project-related traffic and stationary source emissions generated directly and indirectly by the propane consumed. Long-term emissions would be generated from vehicle trips to and from the project area and fuel combustion for space heating, fireplaces, and landscape maintenance.

Project operational emissions (stationary and mobile) have been estimated using the URBEMIS 2007 computer model (Appendix I). This model predicts ROG, NO<sub>x</sub>, PM<sub>10</sub>, and CO emissions based on the project land uses and an estimate that the project could be completed by 2010. If the project were completed at a later time, the emissions would be lower due to improved engine technology and the retirement of older vehicles. Project trip generation rates used data from the traffic study conducted by Fehr & Peers. As shown in Table 3.11-5, project operations emissions would exceed the significance thresholds used for ROG, resulting in significant air quality impacts. Project-related CO emissions are further analyzed in Impact AQ-4.

**Table 3.11-5. Daily Operational Emissions—2010<sup>a</sup>**

Emissions	Criteria Air Pollutants (Pounds Per Day)			
	ROG	CO	NO <sub>x</sub>	PM <sub>10</sub>
Project operational emissions—Phases I, II, and III (Year 2010) <sup>b</sup>	425	936	80	96
Significance thresholds <sup>b</sup>	82	N/A <sup>c</sup>	82	N/A <sup>d</sup>
Are thresholds exceeded?	Yes	No <sup>c</sup>	No	N/A <sup>d</sup>

<sup>a</sup> Emissions were calculated using the URBEMIS 2007 emissions model for the MCAB and project-specific data provided in the project description. N/A – Not available

<sup>b</sup> Calculations include emissions from numerous sources, including vehicle trips, landscape maintenance, and use of natural gas for space heating, fireplaces, and consumer products.

<sup>c</sup> The EDCAQMD refers to the CAAQS for CO (9 ppm), and does not have a pounds per day limit. See Impact AQ-4.

<sup>d</sup> The EDCAQMD refers to the CAAQS for PM<sub>10</sub> (50 micrograms per cubic meter), and does not have a pounds per day limit.

The emissions generated by operation of the project would contribute to the amount of ROG (a precursor to ozone) and potentially PM<sub>10</sub> in the area, and could lead to additional violations of ozone and PM<sub>10</sub> standards. Given the dense urban nature of the proposed residential units in this development and non-attainment status of PM<sub>10</sub> in the area, PM<sub>10</sub> in wood smoke from fireplaces could be a health concern to existing and project residents. Studies have indicated that wood smoke can account for 30 to 80 percent of the PM<sub>10</sub> in a residential area depending on use and meteorological conditions. In addition, wood burning generates carbon monoxide and toxic air pollutants such as benzene and dioxin (Bay Area AQMD 2007). Predominant winds in the area are from the southwest; therefore, sensitive receptors northeast of the project could be affected from project emissions. PM<sub>10</sub> in wood smoke from fireplaces would be a significant impact.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure AQ-3: Design homes and clubhouse to include only propane-burning fireplaces.*

The applicant will ensure only propane-burning fireplaces are used in the project to substantially reduce PM10 emissions. This measure will be a condition of approval of the final subdivision map by the City.

URBEMIS 2007 was used to analyze the installation of propane fireplaces. The resulting emission levels are shown in Table 3.11-6.

**Table 3.11-6. Daily Operational Emissions with Propane Fireplaces—2010<sup>a</sup>**

Emissions	Criteria Air Pollutants (Pounds Per Day)			
	ROG	CO	NOx	PM10
Project operational emissions—Phases I, II, and III (Year 2010) <sup>a</sup>	72	549	79	43
Significance thresholds <sup>a</sup>	82	N/A <sup>b</sup>	82	N/A <sup>c</sup>
Are thresholds exceeded?	No	No <sup>b</sup>	No	N/A <sup>c</sup>

Emissions were calculated using the URBEMIS 2007 emissions model for the MCAB and project-specific data provided in the project description. N/A – Not available

<sup>a</sup> Calculations include emissions from numerous sources, including vehicle trips, landscape maintenance, and use of natural gas for space heating, natural gas burning fireplaces, and consumer products.

<sup>b</sup> The EDCAQMD refers to the CAAQS for CO (9 ppm), and does not have a pounds per day limit. See Impact AQ-4.

<sup>c</sup> The EDCAQMD refers to the CAAQS for PM10 (50 micrograms per cubic meter), and does not have a pounds per day limit.

**Level of Significance After Mitigation: Less than significant because with implementation of these measures, localized operational emissions would be reduced to levels below the significance thresholds.**

**Impact AQ-4: Project traffic would increase CO concentrations at intersections, but would not expose sensitive receptors to substantial CO concentrations.**

Local CO concentrations were estimated using the carbon monoxide impact methodology in the El Dorado County AQMD's Guide to Air Quality Assessment and the results of the EIR traffic study (Section 3.10). Although the area is designated as unclassified with state CO standards, and CO levels are declining due to improvements in vehicle engines, CO concentrations were calculated for comparison purposes.

As can be seen in Table 3.11-7, the emissions from the project would not exceed the CO standards and thus would be considered less than significant.

**Table 3.11-7. Estimated CO Concentrations due to the Project during Peak Hour**

Averaging Time (hours)	Concentrations (ppm) <sup>a</sup>			
	State Standard	Background (2010)	Project (2010)	Background Plus Project (2010)
1	20	1.3	1.3	2.6
8	9	0.4	0.9	1.2

<sup>a</sup> The one-hour and eight-hour CO analysis focuses on peak-hour traffic, calculated as 10 percent of the average daily traffic, because the project's effects on traffic congestion and related CO concentrations are greatest during that period. CO estimates shown above include background concentrations for 1-hour and 8-hour as calculated according to the El Dorado County AQMD – CEQA Guide, First Edition – February 2002.

Other receptors farther from the project vicinity would experience lower CO concentrations, and the impact would also be less than significant.

**Level of Significance Before Mitigation: Less than significant because the project would not expose sensitive receptors to substantial CO concentrations.**

**Impact AQ-5: The project would not create objectionable odors.**

As a general matter, the types of land use development that pose potential odor problems include refineries, chemical plants, wastewater treatment plants, landfills, composting facilities, and transfer stations. As proposed, no such uses would occupy the project area. The project would include a drainage system designed to channel project runoff to two on-site detention basins in the northwestern portion of the project area. The detention basins would release flows into the existing drainages down gradient of the project area. The detention basins would not hold standing water for extended periods of time, thus minimizing the potential for stagnant conditions and odor. Therefore, the project would not create objectionable odors that would affect a substantial number of people.

**Level of Significance Before Mitigation: Less than significant because the project does not include odor-generating features.**

**Impact AQ-6: Project-generated construction and operational emissions would exceed established thresholds for ROG, NO<sub>x</sub>, and PM<sub>10</sub>, and grading activities could release asbestos fibers. The project would therefore have a cumulatively considerable contribution to a significant regional cumulative air quality impact.**

Construction emissions from the project would result in the generation of air pollutants in the project area and in the immediate vicinity, and would incrementally add to cumulative emissions. The project's ongoing operations would also add to ozone precursor emissions on a regional basis and would incrementally add to PM<sub>10</sub>, PM<sub>2.5</sub>, and CO emissions on a local basis. As discussed in Impact AQ-4, however, CO emissions associated with the project on a near- and long-term basis would be less than significant.

Based on the procedure for evaluating cumulative impacts of projects specified by the EDCAQMD's CEQA Guidelines, any project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality

impact. Emissions from project sources would combine with emissions from other sources (i.e., existing and future development), which consist primarily of emissions generated by vehicle traffic on local streets and freeways.

As discussed in Impact AQ-2, construction activities would generate dust and produce vehicle emissions that would exceed established emissions thresholds for ROG, NO<sub>x</sub>, and PM<sub>10</sub>, and grading activities could release asbestos fibers. As discussed in Impact AQ-3, project traffic and residential operations would result in long-term stationary and mobile source emissions that would exceed air quality thresholds for ROG, and could violate PM<sub>10</sub> standards.

Although cumulative traffic volumes would increase by 2030 over the estimated traffic associated with project operation in 2010, attrition of older, high-polluting vehicles; improvements in the overall automobile fleet; and improved fuel mixtures (as a result of ongoing state and federal emissions standards and programs for on-road motor vehicles) would reduce the cumulative NO<sub>x</sub>, ROG, and CO emissions from associated motor vehicles. Although ROG, NO<sub>x</sub>, and CO emissions are likely to decline in future years for project operations due to improved technologies, the project individually has significant air quality impacts. Therefore, the project would be considered to have a cumulatively considerable contribution to a significant regional cumulative air quality impact.

**Level of Significance Before Mitigation: Potentially significant impact.**

*Mitigation Measure AQ-6a: Comply with District Rules 215, 223-1, 223-2, and 224 to reduce construction dust that may contain asbestos through water application, stabilizing exposed soil, covering loads, periodic cleaning of paved areas, and establishing speed limits, and implement EDCAQMD mitigation measures to control equipment exhaust emissions.*

Implement Mitigation Measure AQ-2.

*Mitigation Measure AQ-6b: Design homes and clubhouse to include only propane-burning fireplaces.*

Implement Mitigation Measure AQ-3.

**Level of Significance After Mitigation: Emissions of ROG and NO<sub>x</sub> would remain significant and unavoidable because with implementation of these measures, project construction pollutants would be reduced, but no feasible mitigation measures have been identified that would reduce the construction emissions on all days to levels that would not substantially contribute to potential air quality violations of ozone standards in the project vicinity.**

**Significant and Unavoidable Impacts**

**Impact AQ-2: Construction activities would generate dust and produce vehicle emissions that would exceed established emissions thresholds for ROG, NO<sub>x</sub>, and PM<sub>10</sub>, and grading activities could release asbestos fibers.**



**Impact AQ-6: Implementation of the proposed project would contribute to a cumulative air quality impact in the project area.**

### **3.12 NOISE**

This section describes the regulatory and environmental settings for noise in the project area. The impact analysis evaluates the effects of traffic and airport noise on project uses as well as the effects of the project on noise in the area. Mitigation measures are identified to reduce significant impacts.

Terminology used throughout this section includes the following noise measurement terms. A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called “sound level”) measured in dB. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. The most commonly used noise descriptors are the equivalent sound level (Leq) over a given time period; day-night 24-hour average sound level (Ldn); and community noise equivalent level (CNEL). The Leq is a single value of a constant sound level for the same measurement period duration, which has sound energy equal to the time-varying sound energy in the measurement period. Ldn is the day-night average sound level that is equal to the 24-hour A-weighted equivalent sound level with a 10-dB penalty applied to night between 10:00 p.m. and 7:00 a.m. CNEL is the average A-weighted noise level during a 24-hour day, obtained by a 5-dB addition in the evening from 7:00 to 10:00 p.m. and an addition of a 10-dB penalty in the night between 10:00 p.m. and 7:00 a.m.

#### **3.12.1 Regulatory Setting**

The **City of Placerville General Plan** identifies noise sensitive land uses within Placerville as all single- and multi-family residential uses, schools, and long-term care medical facilities, such as hospitals and rest homes. The Health and Safety Chapter identifies goals and policies to protect the residents of Placerville from the harmful effects of exposure to excessive noise and attempt, insofar as possible, to protect areas within the city where the present noise environment is considered acceptable. In addition, the land use compatibility guidelines contained within the General Plan identify acceptable noise levels for residential uses, including low density single-family, duplex, and mobile homes (Table 3.12-1). These levels are a guide to acceptable noise levels (or unacceptable levels) for project residences and surrounding residences that could be affected by the construction or operation of the project.

**Table 3.12-1. City of Placerville General Plan Exterior Noise Level Standards for Residential Uses**

Category	Noise Level
Normally Acceptable	Less than 60 dBA, Ldn
Conditionally Acceptable	55–70 dBA, Ldn
Normally Unacceptable	70–75 dBA, Ldn
Clearly Unacceptable	above 75 dBA, Ldn

Notes: A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called “sound level”) measured in dB. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels.

Ldn is the day-night average sound level that is equal to the 24-hour A-weighted equivalent sound level with a 10-dB penalty applied to night between 10:00 p.m. and 7:00 a.m.

Source: City of Placerville 1989a

The **Comprehensive Land Use Plan (CLUP)** prepared for the Placerville Airport discusses noise compatibility of surrounding land uses. As noted in the CLUP, complaints about aircraft noise are the most common concern associated with development around airports. The Placerville Airport 2010 Forecast Noise Contours places the project boundaries just outside of the 55-dBA airport noise contour. Relevant policies and implementation measures of the CLUP include the following listed below.

*Policy 3a.* The CNEL method of rating noise impact is adopted for general guidance by the Airport Land Use Commission (ALUC).

*Policy 3b.* The creation of any new residential parcels or portions thereof, including lot-line adjustments of existing parcels to create new parcels or increase density, shall not be allowed within the 65-dB or greater CNEL contour at the Placerville Airport, as this is not a noise-compatible land use.

*Implementation 4a.* Within the established 65-dB CNEL noise contour established by this plan, El Dorado County and the City of Placerville shall submit for ALUC and County Airport Commission review any proposed land use changes, including general plan or specific plan adoptions or amendments, annexations, pre-zoning, re-zoning, use permits, variances, and all new construction applications within the established noise zone above, including detached single-family dwellings on existing parcels zoned for single-family uses.

*Implementation 4b.* For new residential development, including single-family dwellings, and for improvements to existing structures of more than 200 square feet between the 55 dB and 60 dB CNEL noise contours, El Dorado County and the City of Placerville shall evaluate the impact of aircraft noise on such development and require the implementation of appropriate mitigation measures. These measures may include one or more of the following: noise insulation standards, a buyer notification requirement to inform potential buyers of the exterior noise levels projected by the CNEL method at their property, and the attachment of an aviation/noise easement to the title of all property sold in the areas affected by aircraft noise. Each of the above measures is mandatory within the 60-dB or greater CNEL contour.

### 3.12.2 Environmental Setting

The noise environment within the project area is that of a quiet rural or suburban area. At various locations within the project area, and depending on atmospheric conditions, some traffic noise is audible from State Route (SR) 50, Placerville Drive, Country Club Drive, and Barrett Drive. There is also occasional aircraft noise from operations originating at the Placerville Airport. Typical noise levels for indoor and outdoor activities in an urban setting are presented in Table 3.12-2. Lower levels are expected in rural or suburban areas than what would be expected for commercial or industrial zones.

**Table 3.12-2. Typical Noise Levels**

Noise Level, dBA	Outdoor Activity	Indoor Activity
90+	Gas lawn mower at 3 feet, jet flyover at 1,000 feet	Rock band
80–90	Diesel truck at 50 feet	Loud television at 3 feet
70–80	Gas lawn mower at 100 feet, noisy urban area	Garbage disposal at 3 feet, vacuum cleaner at 10 feet
60–70	Commercial area	Normal speech at 3 feet
40–60	Quiet urban daytime, traffic at 300 feet	Large business office, dishwasher next room
20–40	Quiet rural, suburban nighttime	Concert hall (background), library, bedroom at night
10–20		Broadcast/recording studio
0	Lowest threshold of human hearing	Lowest threshold of human hearing

Source: Modified from Caltrans 1998

### Project Area Noise Levels

In order to characterize the ambient noise conditions in the project area, 24-hour unattended noise measurements were conducted at two locations in the project area, and four short-term measurements were made in the project area with concurrent observations recorded. The monitoring site locations are shown in Figure 3.12-1. The noise measurements are summarized in Table 3.12-3, and graphs of the 24-hour noise measurements are provided in Figures 3.12-2 and 3.12-3.

Typical noise levels range from 41 dB during quiet times (minimal traffic on nearby roads) up to 65 dB or greater when traffic noise dominates the setting. Minimal aircraft-related noise was observed during the two-day measurements. Other noise sources include birds, people at Lumsden Park, and barking dogs.

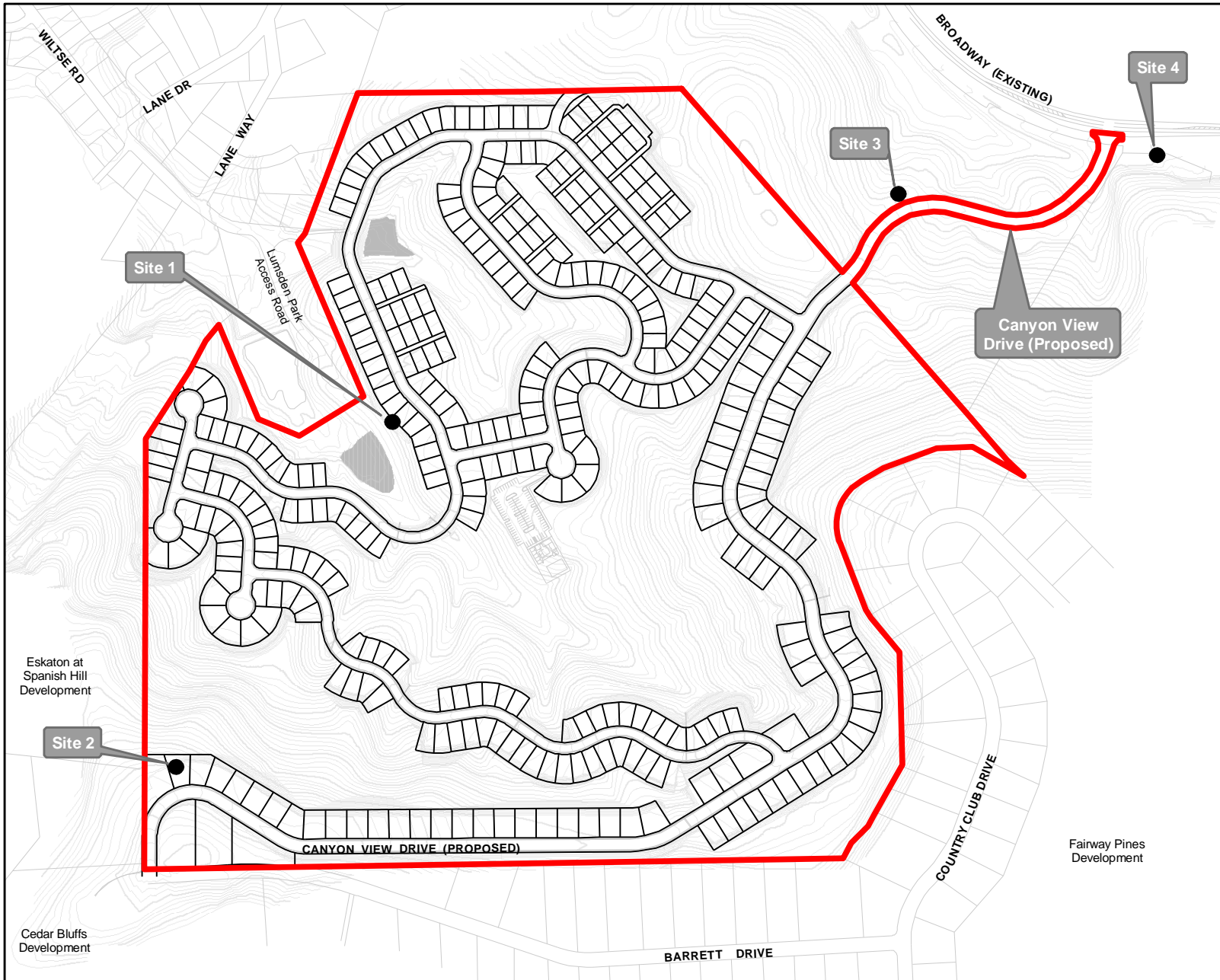
### Sensitive Receptors

Sensitive receptors in the project vicinity include existing residences to the south (along Barrett Drive), to the north (between the project area and Broadway), and to the southeast (along Country Club Drive). These residences are part of low density or rural residential developments, and topography and vegetation separate them from the project area. Three residences also exist along the proposed Canyon View Drive alignment. Two new residential developments (Eskaton at Spanish Hill and Cedar Bluffs)

are in the early phases of construction immediately west of the project area. These developments are located in a valley adjacent to the project, and topography and vegetation separate the two areas.

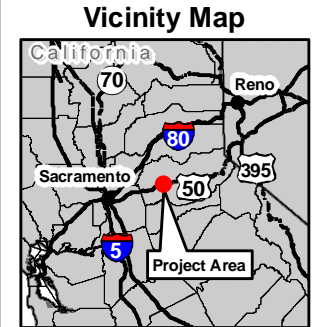
**Table 3.12-3. Existing Noise Environments in Project Area**

Location	Time Period	Ldn, CNEL, and Leq (dB)	Noise Sources
<b>Site 1:</b> North central portion of project area; 50 feet from the center of Wiltse Road near property at 250 Wiltse Road.	Saturday October 6, 2007 24-hour Measurement See Figure 3.12-2	Ldn = 54 CNEL = 55 Hourly average Leq ranged from 42–65	Unattended noise measurements do not specifically identify noise sources.
	Sunday October 7, 2007 3:43–3:55 p.m.	5-minute Leq (dB) = 44, 42 L90,s = 42, 42 (dB)	Very quiet. Small plane 48 dB; can hear low noise from cars on Broadway; distant barking dogs; some birds; voices from people in Lumsden Park.
<b>Site 2:</b> Southwest portion of project area; 300 feet south of the west end of Barrett Drive.	Saturday October 6, 2007 24-hour Measurement See Figure 3.12-3	Ldn = 50 CNEL = 51 Hourly average Leq ranged from 41–49	Unattended noise measurements do not specifically identify noise sources.
	Sunday October 7, 2007 4:59–5:09 p.m.	5-minute Leq (dB) = 44,44 L90,s = 42, 42 (dB)	Very quiet. Constant low traffic noise probably from SR 50. Loud vehicles 49–51 dB. Birds chirping 49 dB.
<b>Site 3:</b> On future alignment of Canyon View Drive (Wilkinson parcel); approximately 1,000 feet south of Broadway.	Sunday October 7, 2007 4:10–4:15 p.m.	5-minute Leq (dB) = 53 L90 = 48 (dB)	Traffic from SR 50 at this location is primary noise. Cars on freeway average 52 dB, maximum from traffic 56 dB. Traffic sounded free-flowing during measurement.
<b>Site 4:</b> At north end of future alignment of Canyon View Drive; near intersection of Broadway; 50 feet south of the centerline of Broadway.	Sunday October 7, 2007 4:35–4:40 p.m.	5-minute Leq (dB) = 71 L90 = 61 (dB)	Traffic from Broadway is dominant noise. When there are gaps in traffic, noise from SR 50 is audible. Traffic noise up to 85 dB (motorcycle). When no traffic, background falls to 49 dB.



### Legend

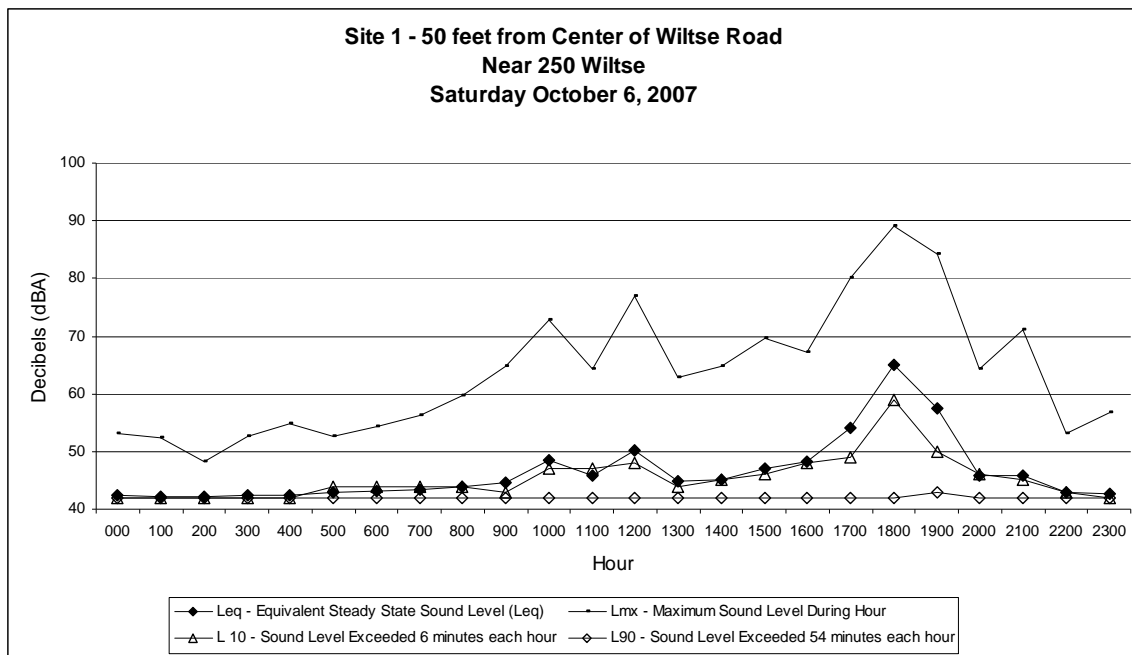
- Project Area
- Basins
- Parcel Lines
- Noise Monitoring Sites



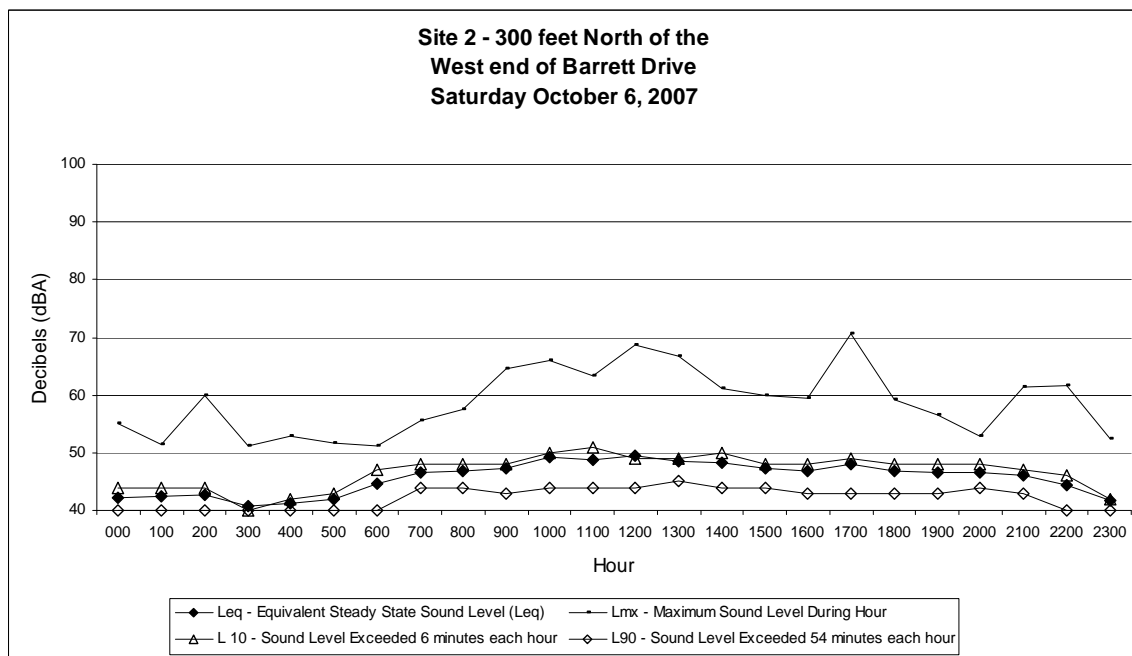
**Figure 3.12-1  
Noise  
Monitoring Sites**

**Lumsden Ranch EIR  
City of Placerville**





**Figure 3.12-2. 24-Hour Noise Measurement from Monitoring Site 1**



**Figure 3.12-3. 24-Hour Noise Monitoring from Monitoring Site 2**





### 3.12.3 Impact Analysis

#### Methodology

Impacts were evaluated by measuring the existing noise levels in the area and determining the noise compatibility of the project. Traffic data and a Federal Highway Administration (FHWA) noise model (Barry and Regan 1978) were used to determine future impacts of traffic-related noise. The analysis considers the suitability of the project area for the proposed residential use and the effect of project noise upon other sensitive receptors in the area. The 2010 Forecast Noise Contours map from the Placerville Airport CLUP was used to determine the noise exposure for the project area from aircraft operations.

#### Levels of Significance

Adverse impacts related to noise would be considered significant if the proposed project would:

- Result in an increase in existing noise levels (generally associated with construction or transportation noise)
- Expose people to severe noise levels (such as due to aircraft operations or traffic noise)

For transportation noise, an increase in noise levels of 5.0 dBA is considered significant where existing noise levels are less than 60 dBA (FICON 1992). In addition, an increase in noise of 3.0 dBA or more is considered significant for existing noise levels between 60 and 65 dBA, and an increase in noise by 1.5 dBA or more is considered significant for existing noise levels greater than 65 dBA. These criteria apply to existing residences only.

With temporary noise impacts (e.g., construction activities), identification of "substantial increases" depends upon the duration of the impact, the temporal daily nature of the impact, and the absolute change in decibel levels. For operational impacts, operational noise that would exceed the "normally acceptable" land use compatibility noise range of the Placerville General Plan would be considered a significant noise impact. Exposure of project residents to noise levels exceeding 60 dB would be considered a significant impact per the General Plan (see Table 3.12-1).

#### Impacts and Mitigation Measures

##### **Impact N-1. Project construction would result in temporary noise impacts that could affect adjacent and project residences.**

Project construction would occur over three phases and is estimated to last for approximately 2.5 years. Each phase would last for 19 months and would overlap subsequent construction phases. Mass grading for house pads, vehicular accesses, drainage, utilities, and other amenities is proposed. Grading activities would occur on approximately 58 acres within the project area (residences, clubhouse, and roads), with

additional grading occurring where utility pipelines and facilities are needed outside of the residential area. Noise generated by these activities could adversely affect nearby residents to the south, north, and southeast, as well as project residents during later construction phases.

Construction activity noise levels at and near the project area would fluctuate depending on the particular type, number, and duration of uses of various pieces of construction equipment. Construction-related material haul trips would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used. The project is proposed to balance cut and fill volumes to minimize the number of haul trips to and from the project area. Table 3.12-4 shows typical noise levels during different construction stages, and Table 3.12-5 shows typical noise levels produced by various types of construction equipment.

Construction of the project would generate a significant amount of noise corresponding to the appropriate phase of building construction and the noise generating equipment used during the 2.5 years of construction. The closest sensitive receptors are the residences to the south and southeast along Barrett Drive, to the northeast along Country Club Drive, and to the north between the project area and Broadway. Other sensitive receptors in the project vicinity would be exposed to construction noise at incrementally lower levels.

**Table 3.12-4. Typical Construction Noise Levels**

Construction Phase	Noise Level (dBA, Leq)
Ground Clearing	84
Excavation	89
Foundations	78
Erection	85
Finishing	89

Notes: Average noise levels correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase.

dBA=A-weighted decibel; Leq=equivalent sound level

Source: EPA 1971

**Table 3.12-5. Typical Noise Levels from Construction Equipment**

Construction Equipment	Noise Level (dBA, Leq at 50 feet)
Dump Truck	88
Portable Air Compressor	81
Concrete Mixer (Truck)	85
Scraper	88
Jack Hammer	88
Dozer	87
Paver	89
Generator	76
Pile Driver	101
Backhoe	85

Notes: dBA = A-weighted decibel; Leq = equivalent sound level

Source: Cunniff 1977

Noise from construction activities generally attenuates at a rate of 6 to 7.5 dBA per doubling of distance. Existing residences could be as close as 30 to 40 feet from construction activities associated with road construction north of the homes on Barrett Drive. Assuming an attenuation rate of 6 dBA per doubling of distance, the closest residences would temporarily experience noise levels of up to 93 decibels during excavation (Table 3.12-4). Residences within 100 feet of the project area would temporarily experience noise levels up to 83 dBA during the finishing phase. Construction noise at these levels would be substantially greater than existing noise levels at adjacent residences. Construction further from the project boundaries would have less impact on the nearby sensitive receptors, but would still generate noise levels considerably above the existing noise levels. During later stages of construction, construction noise could affect residents moving into earlier phases of the development, exposing them to high levels of temporary construction noise.

Construction of the proposed sewer line along Wiltse Road would have similar noise impacts as discussed above and would generate high noise levels at residences as close as 30 feet from the construction activities. Noise levels at the residences could be temporarily as loud as 90 dBA, which would be substantially higher than existing noise levels.

Construction activities would substantially increase ambient noise levels at noise-sensitive locations adjacent to the project area, albeit temporarily; therefore, construction noise would be considered disruptive to nearby residences and would be a significant impact.

Depending on the construction equipment used during project construction, groundborne vibrations could be perceptible at neighboring residences when construction activities occur within 30 to 100 feet of residences, but the vibrations would not be high enough to result in cosmetic or structural damage to buildings.

**Level of Significance Before Mitigation: Significant.**

*Mitigation Measure N-1a: Limit construction to the hours between 7 a.m. and 7 p.m. Monday through Friday, and 8 a.m. and 5 p.m. Saturday.*

The City will require the applicant to limit construction activities to the hours between 7 a.m. and 7 p.m. Monday through Friday, and 8 a.m. and 5 p.m. Saturday to avoid noise-sensitive hours of the day. No construction work will be allowed on Sundays (unless approved in advance by the City Engineer), and no construction work will be allowed on federal/state-recognized holidays. This requirement will be identified on all grading plans and construction contracts.

*Mitigation Measure N-1b: Locate portable (fixed) construction equipment (such as compressors and generators) and construction staging areas away from existing residences.*

The City will require the applicant to identify locations of proposed staging areas on grading plans and assure that they are not near existing residences. The locations of staging areas will be approved prior to issuance of grading permits. This measure will also be identified in construction contracts.

*Mitigation Measure N-1c: Post signs at the construction site that include permitted construction days and hours, expected timeframe for construction, a day and evening contact number for the job site, and a contact number for the City of Placerville for complaints about construction noise.*

The City will require the applicant to ensure signs are posted at the construction site to specify permitted construction days and hours (7 a.m. to 7 p.m., Monday through Friday; 8 a.m. to 5 p.m. Saturday), expected timeframe for construction, and contact numbers for the contractor and City. The signs will help to facilitate rapid communication of any problems related to noise. Posting of the hours and duration will allow the adjacent residences to understand the length of the proposed construction phase and also the limits on activity each day and week. This measure will be identified on grading plans and construction contracts.

**Level of Significance After Mitigation: Less than significant because implementation of the mitigation measures would reduce unnecessary noise generation during the daytime near existing residences.**

**Impact N-2. The project would expose residences to noise from operation of the Placerville Airport, but aircraft noise would be below 55 dB.**

The Placerville Airport CLUP discourages the location of new residences in areas that would be incompatible with aircraft operations at the Placerville Airport. Noise levels above the 65-dB contour are considered unacceptable for residential uses. The Placerville Airport 2010 Forecast Noise Contours show that the project area is entirely outside the 55-dB contour for the Placerville Airport. Thus, residents in the project area would be exposed to aircraft noise levels below 55 dB, which is considered acceptable by both the City and the CLUP. Because the project would not expose residents to

excessive noise levels from airport operations, aircraft-related noise impacts would be less than significant.

**Level of Significance Before Mitigation: Less than significant because the project would not expose residents to excessive aircraft-related noise levels.**

**Impact N-3. Project traffic would increase traffic noise levels in the project vicinity, but would not expose existing residences to a substantial increase in traffic noise levels.**

Based on the traffic analysis for the project (see Section 3.10), the project would generate up to 275 weekday morning (a.m.) and 369 afternoon (p.m.) peak-hour vehicle trips. Approximately 1,752 trips would be exiting the project area, and 1,752 would be entering the project area on a daily basis, for a total of 3,504 daily trips. These trips would be distributed over the local street network and would affect roadside noise levels.

To assess the impact of project traffic on weekday roadside noise levels, noise level predictions were made using the FHWA noise prediction model (Barry and Regan 1978) for those roadway segments most affected by project-related traffic (Appendix J includes the model results). Appendix J Table NA-1 shows traffic-noise modeling results (using traffic estimates prepared for this project) for receptors located at a distance of 50 feet from the roadway centerline.

Project traffic would cause noise levels on nearby roads to increase by 0.4 to less than 5.0 dBA and range from 54.2 dBA Leq to 66.8 dBA Leq (Appendix J Table NA-1). The increase in noise levels along all roads would be minor (less than 5 dBA and negligible based on existing noise levels) and would not be considered noticeable at residences 50 feet or further from the roadway centerline (based on FICON 1992 noise criteria).

Specifically, three residences along Canyon View Drive would be exposed to increased traffic noise levels; however, the increase would not be noticeable because of the distance of the homes from the roadway. Canyon View Drive would serve as a primary access route into the project area, and traffic noise levels would be approximately 61.4 dBA at 50 feet from the centerline based on traffic estimates (Appendix J Table NA-1). At approximately 125 feet from the roadway centerline (where the nearest home is located), traffic noise levels would be approximately 57 dBA (reduced noise level based on distance from traffic). The increase in noise would be approximately 4 dBA based on existing site measurements (Site 3 in 3.12-3). This level of increase would be considered less than significant (not noticeable) because existing noise levels are less than 60 dBA.

Project residences would not be exposed to unacceptable traffic noise levels due to their distance from major roadways (i.e., Broadway) that have existing noise levels greater than 60 dBA. Thus, traffic noise impacts on project residences would be less than significant.

**Level of Significance Before Mitigation: Less than significant because existing and proposed residences would not be exposed to excessive traffic noise.**

**Impact N-4 (Cumulative). Project traffic, in combination with cumulative project traffic, would substantially increase traffic noise levels along Airport Road and Barrett Drive in 2025.**

Project traffic combined with traffic from other approved or pending projects in the vicinity would increase noise levels on roadways in the project vicinity in the year 2025 (assumed build-out year of all projects). To assess the effect of project traffic on roadside noise levels (at 50 feet from the centerline) for the year 2025, noise level projections were made using the FHWA noise prediction model (Barry and Regan 1978; see Appendix J).

Without the project, cumulative traffic noise levels on roadways in the project vicinity would increase by 0.56 to 6.1 dBA, resulting in noise levels ranging from 52.4 dBA Leq to 67.4 dBA Leq. The increase in noise levels along most roads would be minor (less than 5 dBA and negligible based on existing noise levels); however, traffic noise along Airport Road, south of Broadway, would increase by 6.1 dBA (from an existing level of 56.7 dBA to 62.8 dBA), and traffic noise along Broadway, west of Airport Road, would increase by 4.5 dBA (from an existing level of 62.4 dBA to 66.9 dBA). The increase in traffic noise along Broadway would not affect sensitive receptors because no homes are located along the roadway. The increase in traffic noise along Airport Road, however, would be noticeable to a few homes located within 50 feet of the road centerline.

Cumulative traffic noise levels with the project would be further increased along Airport Road, Broadway, and Barrett Drive. The cumulative increase in traffic noise with the project would not be significant along Broadway because no sensitive receptors are located along the roadway. However, the increase in traffic noise would be significant along Airport Road and Barrett Drive, affecting homes within approximately 50 feet of the centerlines. Cumulative traffic noise with the project along these two roads would increase to 62.9 dBA and 55.2 dBA, respectively, resulting in increased noise levels of 6.18 dBA and 5.44 dBA, respectively, from existing levels (Table NA-1 in Appendix J). These increases would be noticeable to adjacent residences, resulting in a significant impact.

**Level of Significance Before Mitigation: Significant**

*Mitigation Measure N-4 (Cumulative): Provide opportunities for alternative forms of transportation.*

The City will require the applicant to incorporate sidewalks, bike lanes, and bus stops into the project design and encourage use of alternative forms of transportation by project residents to reduce traffic. Mitigation measures TT-18a, TT-18b, TT-19a, TT-19b, and TT-20 should be implemented to provide such opportunities. These measures should be shown on grading plans for roadways and incorporated into the project design prior to project approval.

The City and County should encourage other development projects to provide opportunities for alternative transportation to reduce cumulative traffic on roadways in the project vicinity, thus reducing traffic noise.

**Level of Significance After Mitigation: Significant and unavoidable because the mitigation measure would not guarantee a reduction in traffic or traffic noise on Airport Road and Barrett Drive to less-than-significant levels.**

**Significant and Unavoidable Impacts**

**Impact N-4 (Cumulative). Project traffic, in combination with cumulative project traffic, would not substantially increase traffic noise levels in the project vicinity in 2025.**





# CHAPTER 4

## CUMULATIVE IMPACTS

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### 4.1 INTRODUCTION

This Environmental Impact Report (EIR) provides an analysis of cumulative impacts of the proposed project, as required by California Environmental Quality Act (CEQA) Guidelines Section 15130. Cumulative impacts are defined in CEQA Guidelines Section 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 probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time” (CEQA Guidelines Section 15355[b]).

Consistent with CEQA Guidelines Section 15130(a), the discussion of cumulative impacts in this EIR focuses on significant or potentially significant cumulative impacts. CEQA Guidelines Section 15130(b) provides, in pertinent part:

The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

This cumulative impact analysis is based on a list of past, present, and probably future projects and a summary of projections from regional planning documents, depending on the environmental topic being evaluated. The significance thresholds presented in Chapter 3 were used to assess cumulative impacts of the project and related projects. Impacts of past projects are already built into the baseline for the project’s impact analysis (see Chapter 3).

### 4.2 RELATED PROJECTS

Reasonably foreseeable probable future projects include several commercial and residential development projects in the City of Placerville and development in the unincorporated county based on the El Dorado County General Plan. A brief overview of reasonably foreseeable projects is provided below.

#### 4.2.1 City of Placerville Projects

A list of approved and pending commercial and residential projects within the City of Placerville was provided by the City of Placerville Planning Division (Table 4-1 and Table 4-2). It is assumed that these projects would be built by the year 2025, which is consistent with the build-out year used for the cumulative traffic analysis provided in

Section 3.10. Based on the following lists, additional development in the City would include more than 88,000 square feet of office and commercial space and 392 residential units. This development would occur at multiple locations within the city limits.

**Table 4-1. Current Approved or Pending Commercial Projects**

<b>Project Name</b>	<b>Location</b>	<b>Use</b>
Gateway Hotel	Northeast corner of Point View Drive and U.S. 50. APNs 048-290-29, 048-290-30, 048-290-32, 049-110-29, and 049-110-31	102-room hotel (Holiday Inn Express) with convention/meeting facilities; a gas station and a 9,240 sf convenience (country) store with attached carwash (under construction)
EID Headquarters Phases 2 and 3	2890 Mosquito Rd. APNs 002-060-07, 002-060-09, 002-060-11, and 002-012-40	Phase 2: 15,800 sf office addition (under construction) Phase 3: 11,900 sf shop/maintenance building
Placerville Heights	2808 Mallard Lane APN 325-120-80	Two office buildings of 1,925 sf and 3,200 sf (under construction)
Fausel Professional Building	Main Street at Pacific St. APNs 003-071-31, 003-071-39, 003-071-45, 003-071-55, 003-071-56, and 003-071-58	19,400 sf office building (under construction)
Briw Commercial	3047 Briw Rd., near Forni Rd. APN 325-310-26	Three 5,600 sf one story office buildings (under construction)
Toad Hall	971 Spring Street APN 001-072-03	Three level, 10,130 sf mixed use (office/residential), 3 residential units, 3 general office units

sf = square foot

**Table 4-2. Current Approved/Tentative Subdivisions**

<b>Project Name</b>	<b>Location</b>	<b>Units</b>	<b>Type</b>
Astonia (Placerville Estates)	East Airport Rd./ South of Broadway and Texerna Rd.	39	Single-Family Residence
Eskaton/Spanish Hill	Blairs Ln./ West of Wiltse Rd./Lumsden Park	113	Senior Community
The Ridge at Orchard Hill	West of Mallard Lane	53	Senior Community
Cottonwood Park Phases IV and VI	North of Clay St. and Constellation Ave.	39	Single-Family Residence
Quartz Mountain	W. Bedford Ave., end of Quartz Mtn. Dr.	26	Single-Family Residence
Placerville Heritage Homes	Off Ray Lawyer Dr. APN 325-400-20	20	Single-Family Residence
Cedar Bluffs Phases II & III	E. Cedar Ravine/W. Barrett Dr.	58	Single-Family Residence
Country Club Court	S. Country Club Dr. APN 051-520-11	10	Single-Family Residence
Stancil Property	Forni Rd. SW of Office Max APN 325-310-62	34	Single-Family Residence

#### **4.2.2 El Dorado County General Plan**

The 2004 El Dorado County General Plan estimates the population in the County's west slope (i.e., excluding the Tahoe Basin) will grow to 200,000 by 2025. This represents a 64 percent population increase from 2000 estimates of 122,000 residents. The General Plan estimates the number of new households within the County will increase by 30,000 to support the increased population by 2025 (El Dorado County 2004). Build-out of the El Dorado County General Plan would result in construction of a substantial number of new housing units as well as a variety of commercial and office uses to support the increased population. Most of the development would occur along the U.S. 50 corridor and along State Routes 49 and 193 north of Placerville, with scattered residential development throughout the western portion of the County.

#### **4.3 CUMULATIVE IMPACTS AND MITIGATION MEASURES**

This section discusses cumulative impacts expected to result from implementation of the proposed and related projects. Some of the projects' environmental effects would not contribute to cumulative impacts because: (1) the effects would be site-specific (i.e., project-specific) and would not contribute to any cumulative impacts; or (2) the proposed and/or related projects would clearly not result in significant cumulative impacts.

Project-related impacts on geology and soils, cultural resources, and aesthetics would not contribute to cumulative impacts. As discussed in Section 3.6 (Geology and Soils), project impacts on geology and soils include erosion of exposed soils within the project area during construction and safety hazards from existing mining features within the project area. Both of these impacts are site-specific and would not contribute to a cumulative impact. As discussed in Section 3.8 (Cultural Resources), no known significant cultural resources are located within the project area. Impacts related to disturbance of unknown cultural resources would be site-specific and would not

contribute to a cumulative impact. As discussed in Section 3.9 (Aesthetics), project impacts relate to blocking views from nearby homes and public viewpoints, changes to the visual character of the project area, and changes to views of the project area from off-site locations. Lumsden Ranch is located in two adjacent canyons flanked by ridges on the southwest and northeast, and by Texas Hill on the south. The two ridges block views from the west and northeast. Texas Hill blocks all views from the south (except views from some homes at the top of Texas Hill). None of the current or approved projects are located within the same viewshed as the project area; therefore, the project would not contribute to a significant cumulative aesthetic impact. These issues are not discussed further in this chapter.

Cumulative impacts relating to transportation and circulation, air quality, and noise are discussed in their respective sections in Chapter 3.

### **4.3.1 Land Use**

This EIR evaluates the physical environmental effects of the project, including effects that could create physical conflicts with existing, planned, or approved land uses in neighboring areas. As discussed in Section 3.1 (Land Use) and Section 3.11 (Air Quality), the project would expose nearby residents to potential health effects of wood smoke from project fireplaces. As discussed in Section 3.11, however, restricting project fireplaces to burning propane rather than wood would reduce resulting pollutants to acceptable levels. The project would therefore not create physical conflicts with existing, planned, or approved land uses in neighboring areas and would not contribute to a significant cumulative impact related to land use compatibility.

### **4.3.2 Population and Housing**

The cumulative setting for population and housing is the City of Placerville, for which Sacramento Area Council of Governments (SACOG) has population projections through 2050. Projects within the city limits could contribute cumulatively to impacts on population and housing.

**Cumulative Impact PHE-1: The project, in combination with other reasonably foreseeable projects in the city, would contribute to a cumulative increase in population and housing.**

Development in Placerville would result in an increase in housing and employment, which would contribute to a cumulative increase in population. The project would add a net increase of 361 single-family residential housing units in the city, resulting in a permanent population increase of approximately 1,047 persons. Other residential projects in the city would provide approximately 392 new residential units, resulting in an increase in population by approximately 1,137 persons (based on 2.9 persons per unit; City of Placerville 2004). The combined total increase in population associated with the proposed project and related projects would be 2,184 persons. Commercial and office projects in the city could also contribute to the cumulative population increase through indirectly inducing growth by providing employment opportunities and encouraging people to move into the city.

The city's population is expected to increase from 10,171 persons in 2006 to 13,790 by 2020 (SACOG 2004). The housing stock is expected to increase from 4,580 units in 2006 to 4,950 by 2013 (SACOG 2006) and to 9,800 by 2050 (SACOG and Valley Vision 2004). Cumulative development would contribute approximately 753 total housing units and 2,184 people to the city by 2025 (anticipated cumulative build-out year). Based on published population projections through 2020 (SACOG 2004), the cumulative increase in population would contribute approximately 60 percent of the projected growth (2,184 persons) if all projects were built-out by that time. Based on housing projections, the cumulative increase in housing would contribute more than the projected number of new housing units by 2013 (753 new units; 204 percent); however, if no additional development occurs between 2013 and 2050, there could be a shortage of housing because the cumulative development would contribute only 14 percent of the total number of new housing units by 2050. Assuming a build-out year of 2025 for related projects, the provision of 753 new housing units would contribute approximately 39 percent of the number of projected new housing units by 2025 (based on a steady growth rate of 131 units per year from 2013 to 2050, the 2025 housing projection would be 6,523 total units).

Although cumulative development in Placerville would increase the population and housing stock, the increase would fall within population projections for the city through 2020 and within housing projections for the city through 2025. Therefore, cumulative impacts would be less than significant.

**Level of Significance Before Mitigation: Less than significant because the cumulative increase in population and housing would fall within projections.**

### **4.3.3 Public Services**

The cumulative setting for public services encompasses the service areas for various public service providers within the city limits (such as Placerville Police Department) and beyond the city limits within El Dorado County (such as the El Dorado County Fire Protection District [EDCFPD], school districts, and parks). Projects within the city limits could contribute cumulatively to impacts on the Placerville Police Department, and projects in the city and unincorporated county near the city could contribute cumulatively to impacts on the EDCFPD, school districts, and parks.

**Cumulative Impact PS-1: The project, in combination with other reasonably foreseeable projects in and near the city, would contribute to a cumulative increase in demand on local service providers, resulting in the need for new facilities and staff.**

The increased population generated by the project and other reasonably foreseeable projects in the city and in the county (specifically in areas near the city) would increase the demand for law enforcement, emergency and fire protection, recreational facilities, and schools. The corresponding service providers would likely require an increase in staffing, funding, and possibly facilities. The project would result in the need for at least two new officers with the Placerville Police Department, new staffing and fire station facilities with the EDCFPD, new schools in the Placerville Union School District (PUSD), and increased maintenance of parks and possibly new park facilities in the city. Other projects in the city and nearby unincorporated areas would also increase the demand on

these providers, resulting in the need for additional staffing and facilities, which could result in adverse environmental impacts. For police services, each project would contribute funding to the City of Placerville's General Fund, which would provide the police department with a source of funding for facility improvements and new staff. Cumulative impacts on the police department would be less than significant; however, cumulative impacts on the other public services would be significant.

**Level of Significance Before Mitigation: Significant.**

*Cumulative Mitigation Measure PS-1a: Provide funding for new firefighting facilities, equipment, and staff required to serve the project.*

Implement Mitigation Measure PS-2.

*Cumulative Mitigation Measure PS-1b: Assess developer fees to help pay for additional school facilities.*

Implement Mitigation Measure PS-5.

*Cumulative Mitigation Measure PS-1c: Assess park fees to help offset deterioration of park facilities.*

Implement Mitigation Measure PS-6.

**Level of Significance After Mitigation: Less than significant because firefighting staffing, equipment, and facilities required to serve the project would be funded by the applicant, and because the EDCFPD would be responsible for ensuring adequate staff, equipment, and facilities are in place to serve each phase of development prior to occupancy. In addition, developer fees would fully mitigate school facility impacts, and payment of required park fees would offset deterioration of park facilities by project residents. This mitigation measure would reduce the project's contribution to this cumulative impact to a less-than-significant level.**

#### **4.3.4 Utilities and Service Systems**

The cumulative setting for utilities and service systems encompasses the service areas for water supply and wastewater treatment services (generally corresponding with city limits). Projects within the city could contribute cumulatively to impacts on city utilities and service systems, but projects within the county would not be expected to contribute to such impacts because they do not connect to city infrastructure. Projects outside city limits could contribute cumulatively to impacts on the El Dorado Irrigation District's (EID's) ability to supply water.

**Cumulative Impact U-1: The project, in combination with other reasonably foreseeable projects, would contribute to a cumulative increase in demand for water supply service from El Dorado Irrigation District.**

EID is the primary potable and recycled water supplier for El Dorado County. Placerville is within EID's Eastern Service Area and currently receives treated water from EID's

Jenkinson Lake. Projected water demand for the city's service area is estimated at 1,281 gallons per minute (gpm) average day demand (ADD) in 2009 and 1,488 gpm (ADD) in 2015 (ultimate demand) (Kennedy/Jenks Consultants 2005). The Eastern Service Area has an estimated 881 acre-feet of uncommitted water (enough water for approximately 1,519 equivalent dwelling units) based on 2006 water meter readings and contractual obligations (EID 2007). This amount of water would be available for development projects not considered in the City's 2009 projections (Kennedy/Jenks Consultants 2005), which includes some of the reasonably foreseeable projects.

The project would require an average day demand of approximately 110 gpm, based on 366 single-family units. Other reasonably foreseeable projects in the city would require at least 125 gpm, based on 392 residential units and 88,000 square feet of office and commercial buildings (equivalent to 25 units based on 3,500 square feet per unit). Based on a conservative analysis (i.e., where none of the related projects are assumed to be included in 2009 or 2015 projections for the city), cumulative development within the Eastern Service Area would account for 783 equivalent dwelling units or at least 235 gpm, but the increased demand would fall within projected demands for the city and within the available amount of uncommitted water for the Eastern Service Area. Therefore, cumulative impacts on water supply would be less than significant.

**Level of Significance Before Mitigation: Less than significant because EID would have sufficient water supply to serve cumulative development in the Eastern Service Area.**

**Cumulative Impact U-2: The project, in combination with other reasonably foreseeable projects, would contribute to a cumulative increase in demand on sewer and wastewater treatment service in the city.**

The City of Placerville provides wastewater treatment and sewer service to more than 3,000 residential and commercial customers in the city limits. Development within the city would increase the volume of wastewater being conveyed to the Hangtown Creek Water Reclamation Facility (WRF), which could exceed the capacity of the WRF. Available dry weather capacity is approximately 1.0 million gallons per day (mgd); however, wet weather flows often exceed the WRF's 5.7 mgd capacity due to additional stormwater flows being conveyed through sewers in portions of the city, and sewer overflow due to the combination of large volumes of runoff and wastewater (resulting in sewer surcharge).

The project would generate an average volume of wastewater of approximately 0.09 mgd, based on 366 single-family units generating 240 gallons per day (gpd)/unit (Holmes International 2006). Other residential projects in the city would generate approximately 0.09 mgd, and commercial/office projects would generate approximately 0.03 mgd (1,200 gpd/acre). During dry weather and minor storm events, the cumulative increase in wastewater volumes would not exceed the WRF's available capacity. However, during major storm events, the cumulative increase would contribute additional flows that could exceed the WRF's capacity and result in additional sewer surcharge. Cumulative development would contribute to an existing problem, which would require construction of new sewers throughout the city. Therefore, cumulative impacts on sewer and wastewater service would be significant.

**Level of Significance Before Mitigation: Significant.**

*Cumulative Mitigation Measure U-2: Construct new sewers to avoid existing sewer surcharge areas in the city based on the Sewer System Master Plan.*

The City will require each applicant to either contribute fair share funding for construction of new sewers in Placerville or construct new sewers to convey flows to the WRF, such that areas known to result in sewer surcharge are avoided (specific areas are identified in the Sewer System Master Plan prepared by Holmes International [2006]). During the City's environmental review process, or prior to issuance of grading or building permits, the City will ensure adequate funding or sewer lines are provided to reduce the cumulative impact on the sewer and wastewater system.

**Level of Significance After Mitigation: Significant and unavoidable because the sewer system requires major renovations to sufficiently reduce excessive flows during major storm events, and the funding or sewer construction provided by related projects may not be sufficient to reduce significant effects on the WRF.**

### **4.3.5 Hydrology and Water Quality**

The cumulative setting for hydrology and water quality encompasses the Weber Creek Watershed. Projects within the watershed, either in the city or county, could contribute cumulatively to impacts on hydrology and water quality.

**Cumulative Impact HWQ-1: The project, in combination with other reasonably foreseeable projects, would result in a cumulative increase in construction and urban pollutants in downstream surface waters (Hangtown Creek, Weber Creek, and the American River).**

Runoff from the City of Placerville and portions of the unincorporated county drain into the South Fork of the American River via several named and unnamed tributaries, such as Hangtown Creek and Weber Creek. Development within the Weber Creek Watershed would result in increased surface runoff, which could carry construction and urban pollutants to downstream surface waters. Increased pollutants would adversely affect water quality in the American River and its tributaries. Therefore, cumulative impacts on surface water quality would be significant.

**Level of Significance Before Mitigation: Significant.**

*Cumulative Mitigation Measure HWQ-1a: Implement a Stormwater Pollution Prevention Plan and best management practices during construction activities.*

The City will ensure new development projects in the city limits, implement best management practices (BMPs) during construction, and comply with a project-specific Stormwater Pollution Prevention Plan (SWPPP). Typical construction BMPs include temporary erosion control measures, diverting surface flows away from critical areas, minimizing land disturbance during peak runoff periods, containing sediment on-site, and revegetating disturbed areas. Specific BMPs will be identified in each project's SWPPP, which will be reviewed by the City and Central Valley Regional Water Quality Control



Board (RWQCB) prior to issuance of grading permits. BMPs will also be identified on grading plans and in construction contracts.

The County should be responsible for ensuring its projects comply with applicable water quality regulations as well as the adopted General Plan, as required, and implement appropriate BMPs to reduce impacts on surface water quality.

*Cumulative Mitigation Measure HWQ-1b: Implement a water quality control program and incorporate best management practices into project design.*

The City will ensure new development projects in the city limits implement water quality control programs to identify BMPs to reduce urban pollutants in surface runoff. Typical urban BMPs include community outreach, water quality basins, minimizing herbicide/pesticide use, street cleaning, vegetated swales, and pervious pavement. Specific BMPs will be identified in a project-specific water quality control program, which will be established in coordination with the City and Central Valley RWQCB prior to issuance of grading permits.

The County should be responsible for ensuring its projects comply with applicable water quality regulations as well as the adopted General Plan, as required, and implement appropriate BMPs to reduce impacts on surface water quality.

**Level of Significance After Mitigation: If these measures are implemented, impacts on surface water quality would be less than significant.**

#### **4.3.6 Biological Resources**

The cumulative setting for biological resources encompasses the western portion of El Dorado County where similar habitats (mixed oak woodlands) occur along the foothills of the Sierra Nevada. Projects in the city and county could contribute cumulatively to impacts on biological resources.

**Cumulative Impact BR-1: The project, in combination with other reasonably foreseeable projects, would result in a cumulative loss of habitat, including sensitive habitats such as riparian habitat and wetlands.**

Development in areas that contain mixed oak woodlands and forests, riparian habitat, wetlands, and drainages would result in conversion of the habitats to residential, commercial, or office uses, which would adversely affect wildlife that use the habitats and special status plants that may be present in the habitats. The project would result in the loss of 25 acres of black oak forests and woodlands, 32 acres of black oak–foothill pine forests, 12 acres of ponderosa pine–black oak forests, less than 1 acre of riparian habitat, and approximately 0.1 acre of drainages and wetlands. Other projects in the city and county could result in conversion of similar habitats to development, resulting in a cumulatively substantial loss of suitable foraging, nesting, and roosting habitat and possibly a net loss of wetlands. Therefore, cumulative impacts on habitats would be significant.

**Level of Significance Before Mitigation: Significant.**

*Cumulative Mitigation Measure BR-1: Avoid adverse impacts to sensitive habitats, and provide appropriate mitigation to offset unavoidable adverse impacts.*

The City will ensure new development in the city limits complies with applicable biological regulations (i.e., Clean Water Act, Fish and Game Code), as required, and implement mitigation measures to avoid impacts to sensitive habitats such as riparian habitat and wetlands, where feasible, and offset unavoidable impacts through habitat replacement or other measures. Impacts to waters of the U.S. would require permitting through the U.S. Army Corps of Engineers. A Streambed Alteration Agreement with the California Department of Fish and Game would be required for substantial impacts to drainages and adjacent riparian habitat. These regulatory agencies would identify appropriate mitigation, in coordination with the applicant, to fully mitigate impacts to sensitive habitats. Typical mitigation would include replacing habitat, either through an on-site or off-site conservation easement or use of an existing mitigation bank; construction avoidance measures, such as using construction fencing around avoidance areas; and implementing BMPs during construction.

The County should be responsible for ensuring its projects comply with applicable biological regulations as well as the adopted General Plan, as required, and implement appropriate mitigation measures to reduce impacts.

**Level of Significance After Mitigation: If these measures are implemented, impacts on sensitive habitats would be less than significant.**

**Cumulative Impact BR-2: The project, in combination with other reasonably foreseeable projects, could result in a cumulative loss of tree canopy cover.**

Development in forested areas would result in a cumulative loss of tree canopy cover throughout the county. The City enforces preservation of tree canopy through the Woodland and Forest Conservation ordinance, and the County enforces preservation of tree canopy through its General Plan, Conservation and Open Space Element. The project would remove approximately 51 percent (47 acres) of the existing tree canopy in the project area, preserving 49 percent as open space and complying with the City's Woodland and Forest Conservation ordinance. Other development projects could result in additional loss of tree canopy cover; however, enforcement of the City ordinance and County General Plan requirements would ensure future development retains or fully mitigates adequate tree canopy cover. Compliance with City and County requirements would ensure cumulative impacts on tree canopy cover are less than significant.

**Level of Significance Before Mitigation: Less than significant because enforcement of the City ordinance and County General Plan policies would ensure adequate protection of tree canopy.**

**Cumulative Impact BR-3: The project, in combination with other reasonably foreseeable projects, would result in direct and indirect impacts on special status plants and wildlife, which could affect regional populations of the species.**

Development in areas that contain suitable habitat for special status plants and wildlife could result in adverse impacts on individuals, such as construction disturbance or removal of individual plants, which could affect regional populations of the species. The project could adversely affect special status plants, such as Nissenan manzanita, Pleasant Valley mariposa lily, Brandegee's clarkia, Parry's horkelia, and oval-leaved viburnum, and special status wildlife, such as valley elderberry longhorn beetle, northwestern pond turtle, nesting raptors, and bats. Other development in areas that contain suitable habitat or support known populations of these species would result in cumulatively substantial impacts on these species. Therefore, cumulative impacts on special status species would be significant.

**Level of Significance Before Mitigation: Significant.**

*Cumulative Mitigation Measure BR-3: Avoid adverse impacts on special status species, and provide appropriate mitigation to reduce direct and indirect impacts.*

The City will ensure new development in the city limits complies with applicable biological regulations (i.e., federal and state Endangered Species Acts), as required, and implements mitigation measures to avoid impacts to special status species where feasible and offset unavoidable impacts through habitat replacement or other measures. For impacts to federal- or state-listed species, applicants may be required to consult with the U.S. Fish and Wildlife Service or California Department of Fish and Game and obtain incidental take permits. These regulatory agencies would identify appropriate mitigation, in coordination with the applicant, to fully mitigate impacts to special status species. Pre-construction surveys may be required for state and federally listed species, as well as other special status species considered under CEQA. Typical mitigation would include preserving habitat on-site or protecting off-site habitat through a conservation easement; construction avoidance measures, such as establishing buffers around active nest sites, limiting construction to the non-breeding period or using construction fencing around avoidance areas; and transplanting sensitive plant populations or relocating sensitive wildlife to a suitable off-site location.

The County should be responsible for ensuring its projects comply with applicable biological regulations and the adopted General Plan, as required, and implement appropriate mitigation measures to reduce impacts.

**Level of Significance After Mitigation: If these measures are implemented, impacts on special status species would be less than significant.**



# CHAPTER 5

## GLOBAL CLIMATE CHANGE ANALYSIS

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This section defines climate change and greenhouse gases, presents the current legislation and programs to address climate change in California, analyzes potential impacts to climate change from the project, and provides mitigation measures to reduce greenhouse gas emissions.

### 5.1 INTRODUCTION

Climate change refers to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer) (U.S. Environmental Protection Agency [EPA] 2007). Climate change may result from:

- Natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun
- Natural processes within the climate system (e.g. changes in ocean circulation)
- Human activities that change the atmosphere's composition (e.g. burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, desertification, etc.)

Human activities, such as fossil fuel combustion, release photochemically important gases known as greenhouse gases (GHGs). GHGs are effective in trapping infrared radiation that otherwise would have escaped the atmosphere, thereby warming the atmosphere (EPA 2007).

#### 5.1.1 Greenhouse Gases and Global Climate Change

##### Greenhouse Gases

GHGs are any gas that absorbs infrared radiation in the atmosphere (EPA 2007). GHGs, as defined in Assembly Bill (AB) 32, include the following: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). A brief summary of each GHG is summarized below (EPA 2007).

##### Carbon Dioxide (CO<sub>2</sub>)

CO<sub>2</sub> is a naturally occurring gas that is also a byproduct of burning fossil fuels and biomass as well as land-use changes and other industrial processes (EPA 2007). It is the principal anthropogenic GHG that affects the Earth's radiative balance.

##### Methane (CH<sub>4</sub>)

CH<sub>4</sub> is a hydrocarbon that is a GHG with a global warming potential most recently estimated at 23 times that of CO<sub>2</sub>. Methane is produced through anaerobic decomposition of waste in landfills, animal digestion, decomposition of animal wastes,

production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

### Nitrous Oxide (N<sub>2</sub>O)

N<sub>2</sub>O is a powerful GHG with a global warming potential 296 times greater than that of CO<sub>2</sub>. Major sources of N<sub>2</sub>O include soil cultivation practices, especially the use of commercial and organic fertilizers; fossil fuel combustion; nitric acid production; and biomass burning.

### Hydrofluorocarbons (HFCs)

HFCs are compounds introduced as alternatives to ozone-depleting substances in many industrial, commercial, and personal needs. HFCs are emitted as byproducts of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are powerful GHGs with global warming potential ranging from 140 to 11,700 times that of CO<sub>2</sub>.

### Perfluorocarbons (PFCs)

These chemicals were introduced along with hydrofluorocarbons as alternatives to ozone-depleting substances. Like HFCs, PFCs are emitted as byproducts of industrial processes and are also used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they are powerful GHGs with global warming potential ranging from 5,700 to 11,900 times that of CO<sub>2</sub>.

### Sulfur Hexafluoride (SF<sub>6</sub>)

A colorless gas soluble in alcohol and ether, slightly soluble in water, with a global warming potential 22,200 times that of CO<sub>2</sub>, SF<sub>6</sub> is a very powerful GHG used primarily in electrical transmission and distribution systems and as a dielectric in electronics.

## **5.1.2 Global Climate Change**

A series of reports issued by the United Nations Intergovernmental Panel on Climate Change (UNIPCC) has synthesized the results of recent scientific studies on climate change (UNIPCC 2007a; 2007b; 2007c). Key findings of these reports include the following:

- Global atmospheric concentrations of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O have increased markedly as a result of human activities since 1750, and now far exceed pre-industrial levels. Global increases in CO<sub>2</sub> concentration are due primarily to fossil fuel use and land use change, and global increases in CH<sub>4</sub> and N<sub>2</sub>O are due primarily to agriculture.
- Warming of the global climate due to GHGs is unequivocal, as evidenced by increases in air and water temperatures, widespread melting of snow and ice, and rising global average sea level. Most of the increase in global average temperatures since the mid-twentieth century is very likely due to increases in

GHGs from human activities. GHG emissions increased 70 percent between 1970 and 2004.

- Numerous observed long-term climate changes have included changes in arctic temperatures and ice, precipitation, ocean salinity, wind pattern, and the frequency of extreme weather events such as droughts, heavy precipitation, heat waves, and tropical cyclone intensity.
- Continued GHG emissions at current rates would cause further warming and climate change during the twenty-first century that would very likely be larger than that observed in the twentieth century.
- Climate change is expected to have adverse impacts on water resources, ecosystems, food and forest products, coastal systems and low-lying areas, urban areas, and public health. These impacts will vary regionally.

### 5.1.3 California GHG Emissions and Climate Change

In California, the main sources of GHG emissions are from the transportation and energy sectors. According to the California Air Resources Board (CARB) draft GHG emission inventory for the year 2004, 39 percent of GHG emissions result from transportation, and 25 percent of GHG emissions result from electricity generation. California produced 497 million metric tons of CO<sub>2</sub> equivalent (MMtCO<sub>2</sub>e) in 2004 (CARB 2007a). California produces about 2 percent of the world's GHG emissions.

The potential effects of future climate change on California resources include (CCCP 2007):

- **Air temperature:** increases of 3 to 10.4 degrees Fahrenheit by the end of the century, depending on the aggressiveness of GHG emissions mitigation
- **Sea level rise:** 6 to 30 inches by the end of the century, depending on the aggressiveness of GHG emissions mitigation
- **Water resources:** reduced Sierra snowpack, reduced water supplies, increased water demands, changed flood hydrology
- **Forests:** changed forest composition, geographic range, and forest health and productivity
- **Ecosystems:** changed habitats, increased threats to certain endangered species
- **Agriculture:** changed crop yields, increased irrigation demands
- **Public health:** increased respiratory illness and weather-related mortality

## 5.2 CALIFORNIA CLIMATE CHANGE LEGISLATION AND PROGRAMS

### 5.2.1 Vehicle Climate Change Standards

With the passage of AB 1493 (Chapter 200, Statutes of 2002), California moved to the forefront of reducing vehicle climate change emissions. This bill required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light-duty trucks. Regulations were adopted by the CARB in September 2004. The CARB analysis of this regulation indicates emissions savings of 1 MMtCO<sub>2</sub>e by 2010 and 30 MMtCO<sub>2</sub>e by 2020. For these standards to go into effect, the EPA must approve a waiver of Clean

Air Act requirements to allow California (and other states) motor vehicle standards to exceed federal standards.

### **5.2.2 Assembly Bill 32**

In September 2006, the Governor signed into law the California Global Warming Solutions Act of 2006 (AB 32, Health and Safety Code Secs. 38500 et seq.). This law requires CARB to design and implement emission limits, regulations, and other measures, such that statewide GHG emissions are reduced in a technologically feasible and cost-effective manner to 1990 levels by 2020 (representing a 25 percent reduction). The following summarizes the process and schedule for implementing AB 32:

- June 30, 2007: CARB publishes a list of discrete early action GHG emission reduction measures that can be implemented prior to the measures and limits to be adopted to meet the 2020 limit. On September 7, 2007, CARB released a list of additional early action measures and discrete early actions.
- January 1, 2008: CARB determines what the statewide GHG emissions level was in 1990, and approves a statewide GHG limit that is equivalent to that level.
- January 1, 2008: CARB adopts regulations requiring the reporting and verification of statewide GHG emissions.
- January 1, 2009: CARB adopts a scoping plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs by 2020.
- January 1, 2010: CARB adopts and enforces regulations to implement the GHG emission reduction measures identified on the early action list in 2007.
- January 1, 2011: CARB adopts regulations to achieve the required reduction of GHG emissions to 1990 levels by 2020.
- January 1, 2012: GHG emission limits and emission reduction measures adopted by January 1, 2011, become enforceable.

### **5.2.3 Senate Bill 1368**

Senate Bill (SB) 1368 (Public Utilities Code Sections 8340 et seq.) is an AB 32 companion bill that was signed into law in 2006. It requires the California Public Utilities Commission (CPUC) to establish a GHG performance standard for baseload generation from investor-owned utilities and the California Energy Commission (CEC) to establish a similar standard for publicly owned utilities. These standards may not exceed the GHG emission rate from a baseload combined-cycle natural gas-fired plant. The bill also requires all imported electricity provided to California to be generated from plants meeting CPUC and CEC standards.

### **5.2.4 Renewable Portfolio Standard Program**

The CPUC and CEC coordinate the Renewable Portfolio Standard (RPS), which calls for more energy to come from clean, renewable sources such as wind and solar. In 2003, the Governor called for an acceleration of the RPS to 20 percent by 2010 rather than 2017; this goal was codified by SB 107 (Chapter 464, Statutes of 2006). In 2005, the Governor called for an acceleration of the RPS to 33 percent by 2020.



### **5.2.5 Senate Bill 97**

The California Environmental Quality Act (CEQA) requires the Office of Planning and Research (OPR) to prepare and develop proposed guidelines for implementation of CEQA by public agencies. Accordingly, SB 97 (Chapter 185, Statutes of 2007) requires OPR to develop guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions by July 1, 2009. The Resource Agency must certify and adopt those guidelines by January 10, 2010. Until these guidelines are adopted, there is no formal guidance on how to conduct climate change analyses in CEQA documents.

### **5.2.6 Governor's Executive Orders**

Executive Order S-3-05 was signed in 2005 and calls for a reduction of GHG emissions to 2000 levels by 2010, a reduction of GHG emissions to 1990 levels by 2020, and a reduction of GHG emissions to 80 percent below 1990 levels by 2050. The order directs the California Environmental Protection Agency (CalEPA) secretary to coordinate development and implementation of strategies to achieve the GHG reduction targets in conjunction with the secretary of Business, Transportation and Housing Agency, the secretary of the Department of Food and Agriculture, the secretary of the Resources Agency, the chairperson of the CARB, the chairperson of the CEC, and the president of the CPUC.

CalEPA created the Climate Action Team (CAT) from representatives from the agencies listed above to implement strategies to reduce GHG emissions. Executive Order S-3-05 also includes a reporting requirement for CalEPA to the Governor and legislature. The first report was released in March 2006 (CalEPA 2006), and a report will be issued bi-annually in the future. CAT has also issued a report on proposed early actions to mitigate climate change in California (CAT 2007).

Executive Order S-1-07, the Low Carbon Fuel Standard (LCFS) (issued on January 18, 2007) calls for a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. The executive order instructed CalEPA to coordinate activities between the University of California, CEC, and other state agencies to develop and propose a draft compliance schedule to meet the 2020 target. Furthermore, the order directed CARB to consider initiating regulatory proceedings to establish and implement the LCFS. In response, CARB identified the LCFS as an early action item with a regulation to be adopted and implemented by 2010.

## **5.3 IMPACT ANALYSIS**

### **5.3.1 Methodology**

GHG emissions generated by the project's electricity consumption were estimated using CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions as representative of all GHGs using formulas and emission factors from the California Climate Action Registry (CCAR) Report Protocol 2006 (CCAR 2007) (see EIR Appendix I). Emissions of HFCs, PFCs, and SF<sub>6</sub> were not separately estimated; therefore, the total GHGs associated with electricity consumption would be greater than the CO<sub>2</sub> equivalent emissions calculated here.

GHG emissions generated by construction equipment during the construction phase and by project vehicles and propane consumption for space heating after construction were

estimated using CO<sub>2</sub> emissions as representative of CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>. These CO<sub>2</sub> emissions were calculated using the URBEMIS 2007 emissions model for the Mountain Counties Air Basin (see EIR Appendix I). Emissions of the latter pollutants were not separately estimated for construction emissions or for non-electricity operation emissions; therefore, the total GHGs associated with these project components would be greater than the CO<sub>2</sub> emissions calculated here.

To be conservative, the analyses considered both construction and operations emissions although construction emissions would not be permanent emission sources.

### **Methodology Uncertainties**

Several uncertainties affect the CO<sub>2</sub> emissions estimates presented in this EIR:

- The analysis assumes today's CO<sub>2</sub> emissions factors will apply in future years. The extent to which construction and operations emissions factors will change in the future is unknown. It is likely that AB 32 and other GHG regulatory programs will reduce at least some of these emissions factors.
- The analysis assumes all CO<sub>2</sub> emissions associated with the project are "new." However, some of these emissions would actually be "redistributed" from existing developments in other locations, but the extent of this redistribution is uncertain.
- Although it is possible to calculate the project's incremental CO<sub>2</sub> emissions, it is not possible to demonstrate that the project's relatively minor incremental contribution to global GHG emissions would contribute to global climate change effects.

### **5.3.2 Criteria for Determining Significance**

Specific significance criteria for GHG emissions have not been developed under CEQA. However, for this project, adverse impacts to climate change would be considered significant if the project would generate a substantial increase in GHG emissions relative to existing conditions.

### **5.3.3 Impacts and Mitigation Measures**

**Impact CC-1: Project construction would generate more than 11 metric tons, and project operation would generate more than 939 metric tons, of CO<sub>2</sub> equivalents per year.**

The project would generate more than 11 metric tons of CO<sub>2</sub>e/yr during the three-year construction period, and more than 939 metric tons of CO<sub>2</sub>e/yr from operations (including emissions from vehicle trips, space heating, and indirect emissions from use of electricity). After construction, therefore, the project would generate more than 939 metric tons of CO<sub>2</sub>e/yr (0.0009 MMtCO<sub>2</sub>e/yr).

California GHG emissions in 2004 were estimated to be 497 MMtCO<sub>2</sub>e/yr (CARB 2007a). Even if project-generated emissions of GHGs other than CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O were added to project emissions, the project would still represent a very small fraction of the state's GHG emissions. The project's annual operational CO<sub>2</sub>e emissions (0.0009

MMtCO<sub>2</sub>e) represent a very small fraction of this total. Nevertheless, the project's incremental contributions to GHG emissions are considered cumulatively significant because they are considered substantial increases compared with existing emissions from the project area's undeveloped land uses.

**Significance Level Before Mitigation: Significant.**

*Mitigation Measure CC-1a: Implement measures to reduce GHG emissions from construction activities.*

To reduce GHG emissions from construction activities, the applicant will be required to implement appropriate construction equipment exhaust measures (see Mitigation Measure AQ-2).

*Mitigation Measure CC-1b: Implement measures to reduce GHG emissions from energy use.*

To reduce GHG emissions from direct and indirect energy use, the applicant will be required to:

- Design homes and clubhouse to include only propane burning fireplaces (see Mitigation Measure AQ-3)
- Equip residential structures with front and rear electric outlets
- Meet or exceed the latest Title 24 energy efficiency standards applicable to the project (Title 24 standards are energy efficiency standards for residential and non-residential buildings established by Title 24, Part 6 of the California Code of Regulations)

*Mitigation Measure CC-1c: Implement measures to reduce GHG emissions from transportation.*

To provide opportunities for alternative forms of transportation and reduce vehicle miles traveled (VMT), the project applicant will be required to:

- Incorporate sidewalks, bike lanes, and bus stops into the project design and encourage use of alternative forms of transportation by project residents to reduce traffic (see Mitigation Measure N-4)
- Construct a bus stop within 250 feet of the intersection of Broadway with Canyon View Drive (see Mitigation Measure TT-18a)
- Include provisions for Class II bike lanes in the street improvements constructed for the project (see Mitigation Measures TT-19a and TT-19b)
- Include provisions for sidewalks in the street improvements constructed for the project (see Mitigation Measure TT-20)

**Significance Level after Mitigation: Significant and unavoidable because it is not possible to calculate the effectiveness of these mitigation measures in reducing GHG emissions. With mitigation, project GHG emissions would likely still be substantial compared to existing conditions.**



# CHAPTER 6

## ALTERNATIVES

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### 6.1 INTRODUCTION

The analysis of alternatives is an important element of the Environmental Impact Report (EIR) process. California Environmental Quality Act (CEQA) Guidelines Section 15126.6(a) requires an evaluation of "...a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." Alternatives are used to determine whether or not a variation of the project would reduce, or eliminate, significant project impacts within the basic framework of the objectives. Project objectives include creating a residential project that:

- Is consistent with the policies of the City's General Plan
- Maximizes housing stock consistent with project area's General Plan land use designation and zoning to address regional housing needs
- Utilizes a Planned Development Overlay to allow for more flexible design than is permissible under the conventional zoning codes
- Retains approximately 50 percent of the project area as open space that will preserve existing biological habitat and canopy cover, with much of the land undisturbed by construction activities
- Is compatible with adjacent land uses
- Is an infill project that fits harmoniously into the existing and surrounding environment with easy access to U.S. 50, shopping, and other community facilities in the city of Placerville
- Provides for various infrastructure improvements that would benefit the community including roadway improvements and sewer facilities

CEQA Guidelines Section 15126.6(f) specifies that the range of alternatives is governed by the "rule of reason," requiring evaluation of only those alternatives "necessary to permit a reasoned choice." Further, an EIR "...need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative" (CEQA Guidelines Section 15126.6[f][3]).

CEQA Guidelines Section 15126.6(e) requires that, among other alternatives, a "No Project" alternative be evaluated in comparison to the project. CEQA Guidelines Section 15126.6(e)(2) requires that the No Project analysis discuss "...what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." Accordingly, the No Project alternative analyzed in this EIR discusses a 366-unit residential development with a conventional subdivision plat map rather than a Planned Development Overlay.

CEQA Guidelines Section 15126.6(d) requires an EIR to discuss significant effects caused by the alternative, but permits the evaluation to be conducted in less detail than

is done for the project. Potential environmental impacts for each alternative are provided in comparison to the project. The advantages and disadvantages of each alternative, compared to the project, are presented. Any significant impacts created exclusively by an alternative are also identified. Table 6-1 provides a summary of the project alternatives analyzed and their environmental advantages and disadvantages.

**Table 6-1. Comparison of Alternatives to the Proposed Project**

Proposed Project	No Project	Reduced Density Alternative	Blairs Lane Connection Alternative
<b>Description</b>			
<ul style="list-style-type: none"> <li>▪ 366 single-family residential units</li> <li>▪ Planned Development Overlay</li> <li>▪ Clubhouse and swimming pool</li> <li>▪ 75 acres of open space</li> <li>▪ Canyon View Drive extension to Broadway</li> <li>▪ Two vehicle access roads to project area</li> <li>▪ All required on-site and off-site infrastructure</li> <li>▪ Sprinklers in all homes and clubhouse</li> </ul>	<ul style="list-style-type: none"> <li>▪ 366 single-family residential units</li> <li>▪ No Planned Development Overlay</li> <li>▪ No clubhouse or swimming pool</li> <li>▪ Smaller, noncontiguous open space areas</li> <li>▪ Conservation easements over portions of private parcels.</li> <li>▪ Canyon View Drive extension to Broadway</li> <li>▪ Two vehicle access roads to project area</li> <li>▪ All required on-site and off-site infrastructure</li> <li>▪ Sprinklers in all homes</li> </ul>	<ul style="list-style-type: none"> <li>▪ 243 single-family residential units</li> <li>▪ Planned Development Overlay</li> <li>▪ Clubhouse and swimming pool</li> <li>▪ More open space areas</li> <li>▪ Canyon View Drive extension to Broadway</li> <li>▪ Two vehicle access roads to project area</li> <li>▪ All required on-site and off-site infrastructure</li> <li>▪ Sprinklers in all homes and clubhouse</li> </ul>	<ul style="list-style-type: none"> <li>▪ Same land development as project</li> <li>▪ New road connection from project to Blairs Lane</li> <li>▪ No sprinklers in homes</li> </ul>

**Table 6-1. Comparison of Alternatives to the Proposed Project**

Proposed Project	No Project	Reduced Density Alternative	Blairs Lane Connection Alternative
<b>Results of Analysis</b>			
<p><u>Advantages</u></p> <ul style="list-style-type: none"> <li>▪ Meets all project objectives</li> </ul> <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <li>▪ Traffic impacts (SU)</li> <li>▪ Air quality impacts – construction (SU)</li> <li>▪ Sewer capacity under severe storm conditions (SU)</li> </ul>	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <li>▪ None</li> </ul> <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <li>▪ Does not meet all project objectives</li> <li>▪ No land use efficiencies gained from Planned Development Overlay</li> <li>▪ Smaller, noncontiguous open space areas</li> <li>▪ Greater impacts on biological resources</li> <li>▪ More grading and alteration of ridgelines</li> <li>▪ Some buildings more visible from off-site locations</li> <li>▪ No on-site recreation</li> </ul>	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <li>▪ Less traffic - may reduce some SU traffic impacts</li> <li>▪ Less vehicle noise</li> <li>▪ Less demand for public services</li> <li>▪ Less construction and vehicle emissions</li> <li>▪ Less habitat conversion</li> <li>▪ Less effect on biological resources</li> <li>▪ Less visible</li> <li>▪ Would not result in new significant impacts</li> </ul> <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <li>▪ Would not meet project objectives</li> <li>▪ Might be economically infeasible</li> <li>▪ Might be legally infeasible</li> <li>▪ Would not provide enough housing units to meet the City's planned population increase.</li> </ul>	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <li>▪ Meets all project objectives</li> <li>▪ Consistent with City's Master Street Plan</li> <li>▪ Provides third access road to project area</li> </ul> <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <li>▪ Would result in similar impacts within the Lumsden Ranch development area</li> <li>▪ Would convert slightly more habitat</li> <li>▪ Would not improve police and fire emergency response times</li> </ul>



**Table 6-1. Comparison of Alternatives to the Proposed Project**

Proposed Project	No Project	Reduced Density Alternative	Blairs Lane Connection Alternative
<b>Conclusions</b>			
<ul style="list-style-type: none"> <li>▪ Meets all project objectives</li> </ul>	<ul style="list-style-type: none"> <li>▪ Does not reduce any SU impacts to LTS</li> <li>▪ Would result in a significant aesthetic impact that would not occur under the project.</li> <li>▪ Increases several environmental effects</li> <li>▪ Does not meet all project objectives</li> </ul>	<ul style="list-style-type: none"> <li>▪ Environmentally superior alternative</li> <li>▪ May reduce some SU traffic impacts</li> <li>▪ Lessens several environmental effects</li> <li>▪ Would not result in new significant impacts                             <ul style="list-style-type: none"> <li>▪ Would not meet all project objectives</li> <li>▪ Might be economically infeasible</li> <li>▪ May be legally infeasible because the proposed project would not result in any specific, adverse impact on public health or safety</li> </ul> </li> <li>▪ Would not provide enough housing units to meet the City's planned population increase.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consistent with City's Master Street Plan</li> <li>▪ Provides third access road to project area</li> <li>▪ Similar impacts to project</li> <li>▪ Would meet all project objectives</li> </ul>

LTS = Less than significant  
 SU = Significant and unavoidable

## **6.2 ALTERNATIVES CONSIDERED BUT REJECTED**

CEQA Guidelines Section 15126.6(c) provides that an EIR “should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency’s determination.” Three such alternatives have been identified: vehicle access to the project area using Wiltse Road; an emergency vehicle access road between the project area and Broadway, northwest of the proposed alignment of Canyon View Drive; and an alternative location for the project.

### **6.2.1 Vehicle Access Using Wiltse Road**

Early in the project’s planning process, the City and the applicant considered the feasibility of using Wiltse Road as a vehicle access route to Lumsden Ranch. Because Wiltse Road provides direct access to Broadway and convenient access to U.S. 50 via Schnell School Road, it is reasonable to assume motorists would use Wiltse Road as the primary access road for Lumsden Ranch. The project would therefore generate a substantial volume of traffic on Wiltse Road, a narrow residential street.

The City determined that Wiltse Road would not feasibly provide access to Lumsden Ranch for either private or emergency vehicles for several reasons. General Plan Policy C.1 discourages the creation or continuance of traffic hazards in new development and other proposals requiring the City to exercise its discretionary authority. Wiltse Road is too narrow to safely accommodate the traffic volumes generated by the project. Wiltse Road would have to be widened, requiring substantial acquisition of private residential property, perhaps by eminent domain. In addition, many of the residential setbacks on Wiltse Road do not conform to City code, and widening Wiltse Road would further decrease these setbacks. Also, a substantial traffic increase on Wiltse Road could create safety hazards for vehicles using the private driveways on Wiltse Road.

The volume of project traffic expected to use Wiltse Road would also generate substantial vehicle noise, and could generate safety concerns for pedestrians and bicyclists.

The City also considered using Wiltse Road strictly for gated emergency vehicle access, but also found that alternative to be infeasible. For safety reasons, the El Dorado County Fire Protection District (EDCFPD) requires gates on any vehicle road (including emergency vehicle roads) to allow private vehicles to exit through the gate at any time. This can be accomplished by installing gates with sensors that open automatically for outbound traffic. Such gates would not effectively restrict outbound private vehicles from using Wiltse Road for non-emergency travel. This alternative, therefore, would not be feasible.

For the reasons described, Wiltse Road would not feasibly provide access to Lumsden Ranch for either private or emergency vehicles, and is no longer being considered.

### **6.2.2 Emergency Access Road from Broadway**

The applicant had previously proposed an emergency vehicle access road (i.e., for fire and emergency vehicles) serving the development from Broadway northwest of the proposed Canyon View Drive. This road was proposed in response to a request from

EDCFPD to provide three access routes into the project area for emergency vehicles (Canyon View Drive would provide two access routes: one from Broadway and one from Barrett Drive). EDCFPD, however, expressed several concerns with the feasibility of this emergency access road, and the applicant is no longer proposing the road. Specifically, EDCFPD expressed concern that the gradient would be too steep and the turning radii would be too sharp for emergency vehicles (including fire trucks), and that the road would be too close to one of the other two access routes (i.e., Canyon View Drive). In addition, EDCFPD expressed concern that access roads designated only for emergency vehicles often fall into a state of disrepair that hinders passage by emergency vehicles. EDCFPD indicated that it would accept two access roads if the applicant installs sprinklers in every home and the clubhouse. The applicant is proposing to install sprinklers in all residences if a feasible third access route is not identified. For the reasons described, this access road would not feasibly provide access for emergency vehicles and is no longer proposed.

The applicant is exploring a third access route through the neighboring Eskaton Village. The EIR evaluates this alternative (see the Blairs Lane Connection Alternative below).

### **6.2.3 Alternative Locations**

In determining whether alternative locations for the project need to be considered in an EIR, CEQA Guidelines Section 15126.6(f)(2)(A) states:

The key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.

Most of the project's significant impacts are related to citywide or regional issues rather than site specific issues. City and regional issues include traffic impacts on the City's street system and U.S. 50 in Placerville; increased demand on public services, such as police, fire, and schools; impacts related to stormwater infiltration/inflow in the City's sewer system under severe storm conditions; and exceedance of regional air quality thresholds. Relocating the project elsewhere in the city would not be expected to avoid or substantially lessen these impacts.

Site specific issues include construction-related impacts, impacts on biological resources, and aesthetics. Similar impacts would be expected to occur regardless of the location within Placerville.

CEQA Guidelines Section 15126.6(f)(1) further states that site suitability, economic viability, and availability of infrastructure can be used to judge the feasibility of alternatives. An important project objective includes creating a residential project consistent with the policies of the City's General Plan and the project area's general plan land use designation and zoning. No other location exists that would feasibly meet this objective.

No feasible alternative locations exist that would avoid or substantially lessen any of the significant effects of the project. Alternative locations are not considered further.

## **6.3 DESCRIPTION OF ALTERNATIVES EVALUATED IN THE EIR**

### **6.3.1 No Project Alternative**

Under the No Project Alternative, 366 residential units would be built within the project area based on the existing general plan land use and zoning designations, and is similar to the Conventional Subdivision Plat map prepared by the applicant in 2006 (Figure 6-1). This alternative would not include a Planned Development Overlay, and minimum parcel sizes would be consistent with the requirements of the zoning designations.

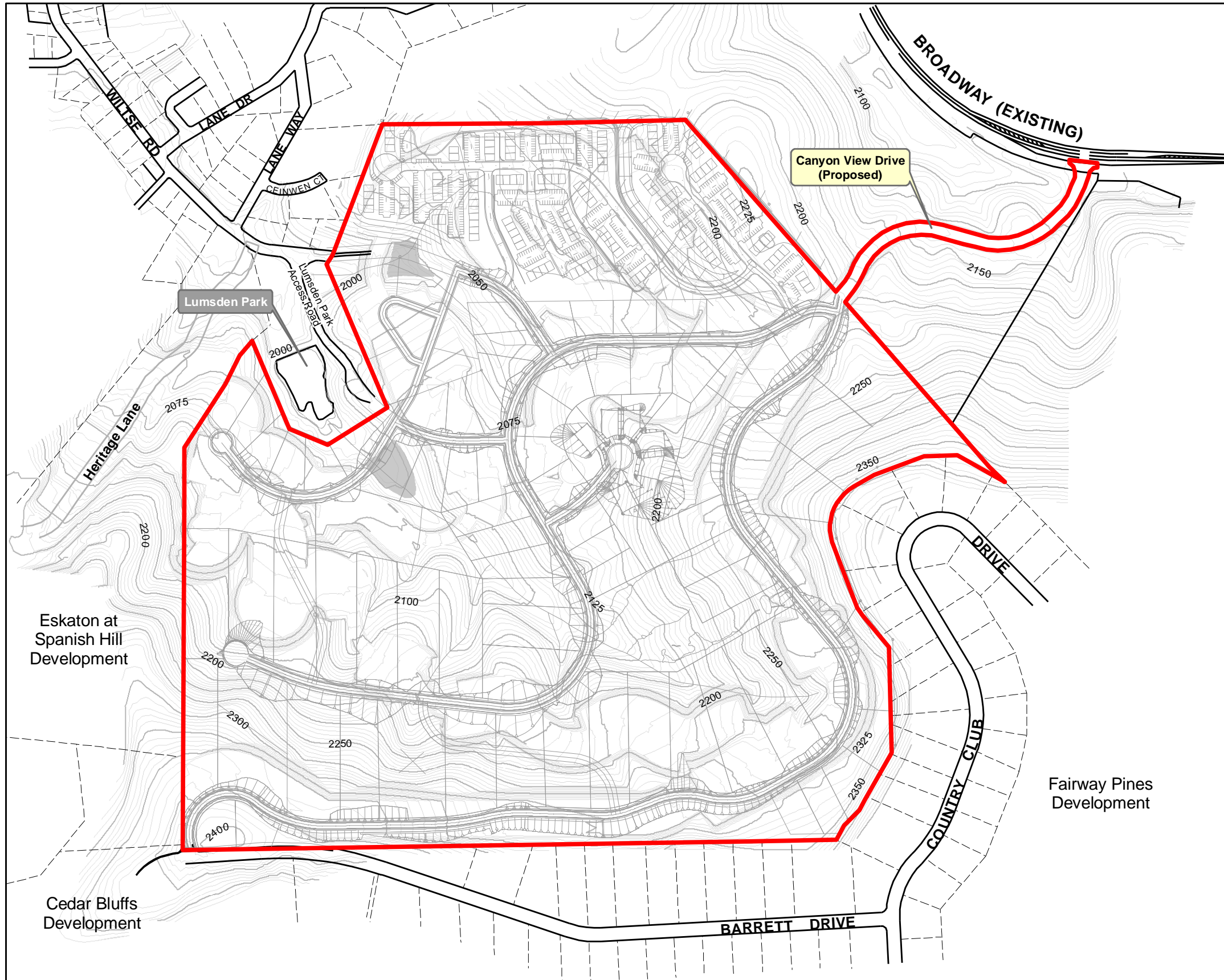
The project area contains two general plan land use designations and two zoning designations. Approximately 23 acres in the northern portion of the project area are designated High Density Residential and are zoned R3 (Multi-Family Residential). The maximum allowable density in the R3 zone is 12 dwelling units per acre. The remaining 110 acres are designated Low Density Residential and are zoned R1-20,000 (Single-Family Residential, 20,000 square foot minimum parcel).

Under this alternative, 276 apartment units in two-story buildings would be built in the Multi-Family Residential zone, and 90 large lot single-family units would be built in the Single-Family Residential zone. Four noncontiguous open space parcels would be set aside, including one open space parcel intended to preserve a cluster of wetlands and seeps in the southern portion of the project area. Approximately one-third of the project area would be graded to create roads and pads, and the rest would be incorporated into the private lots and open space parcels. Conservation easements would be placed on the open space parcels and some portions of the private parcels in the R1-20,000 zone to preserve the wetlands and seeps and to retain tree canopy.

Because the open space parcels would not be contiguous, this alternative would not include large areas of contiguous open space, and would not include a trail system. No clubhouse or swimming pool would be built.

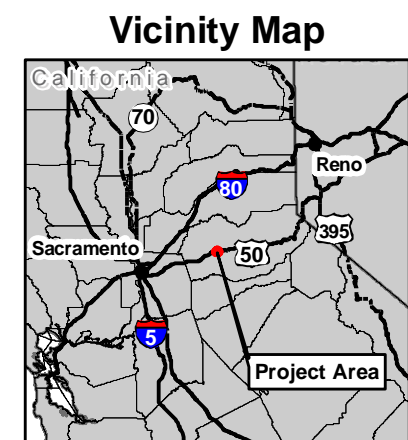
Similar to the project, this alternative includes all necessary internal and off-site infrastructure, including roads and utility lines. This alternative also includes retaining walls similar to the project.

This alternative would not meet the project objectives of using a Planned Development Overlay to allow for more flexible design than is permissible under the conventional zoning codes, and retaining approximately 50 percent of the project area as open space, with much of the land undisturbed by construction activities.



**Legend**

- Project Area
- Parcel Lines
- - - Adjoining Parcel Lines



**Figure 6-1  
No Project  
Alternative**



Table 6-2 shows an estimate of land uses within the project area for the No Project Alternative.

**Table 6-2. No Project Alternative Land Uses and Dwelling Units**

Zoning Designation	Gross Acres	Dwelling Units	Density (du/ac)
R-3 Multi-Family Residential	23	276	12
Single-Family Residential, 20,000 square feet	110	90	0.8
Totals	133	366	2.8

### Impact Analysis

#### Land Use

Because land uses would be similar to the project, this alternative would be consistent with General Plan land use and zoning designations, and the policies of the Placerville Airport Comprehensive Land Use Plan (CLUP). This alternative would also have similar land use compatibility impacts to the project.

This alternative, however, would not include a Planned Development Overlay and therefore would not maximize the efficient and creative use of parcels encouraged in General Plan Policy B.2. Without a Planned Development Overlay, the minimum parcel size for the R1-20,000 zone (covering most of the project area) would not allow clustering of homes to retain large contiguous areas of open space.

#### Population and Housing

Similar to the project, construction of 361 new housing units and a resulting population increase of about 1,047 new residents would not exceed population and housing projections.

#### Public Services

Because land uses under this alternative would be similar to the project, and because this alternative would also generate about 1,047 new residents, the increased demand for schools and police and fire services would be similar to the project.

Because no clubhouse, pool, or hiking trails would be built, the No Project Alternative could result in more use of City parks by Lumsden Ranch residents than the project. Similar to the project, however, the applicant would be required to pay more than \$400,000 in park fees to the City to help offset deterioration of park facilities caused by the project.

### Utilities and Service Systems

Because land uses under this alternative would be similar to the project, and because this alternative would also generate about 1,047 new residents, increased demand on utilities and service systems would be similar to the project.

### Hydrology and Water Quality

Land uses and infrastructure improvements under this alternative would be similar to the project. This alternative would therefore result in similar impacts related to hydrology and water quality.

### Geology and Soils

Land uses and infrastructure improvements under this alternative would be similar to the project. This alternative would therefore result in similar impacts related to geology and soils.

### Biological Resources

The No Project Alternative would not include a Planned Development Overlay and therefore would not allow clustering of homes to retain large contiguous areas of open space. Conservation easements would be placed on the open space parcels and some portions of the private parcels. Conservation easements on private property, however, might not provide the level of protection for biological resources than would be expected by conservation easements on designated open space areas, because they would be more difficult to monitor and enforce.

Also, the smaller noncontiguous open space areas of the No Project Alternative would provide less protection of travel corridors within the project area than the larger open space areas proposed for the project.

This alternative would therefore result in greater impacts on biological resources than the project.

### Cultural Resources

No known significant cultural resources occur within the project area. Similar to the project, this alternative would not result in significant impacts to known cultural resources.

### Aesthetics

The No Project Alternative would include more grading and alteration of ridgelines and would be more visible from off-site locations than the project. The two-story apartment buildings in the Multi-Family Residential zone would be built closer to the project boundary, and would involve substantial alteration of the ridgelines along the north and northeast sides of the property. The ridgeline along the northeast side of the property is



mapped as a secondary ridgeline in the General Plan Background Report (City of Placerville 1989b). This alternative would not include creative site planning to preserve ridgelines and minimize grading, and would therefore be inconsistent with General Plan Policy VII.A.2. This would result in a significant impact that would not occur under the project. In addition, these buildings would be more visible from off-site areas (including U.S. 50) than the homes proposed for the project. This alternative would also include a single-family parcel on the ridgeline along the northeastern project boundary (south of Canyon View Drive) that may be visible from off-site areas.

### Transportation and Circulation

Because land uses and access roads under this alternative would be similar to the project, the No Project Alternative would result in similar traffic impacts to the project.

### Air Quality

Because land uses and the amount of construction under this alternative would be similar to the project, the No Project Alternative would result in similar air quality impacts to the project.

### Noise

Because land uses and the location of construction under this alternative would be similar to the project, the No Project Alternative would result in similar noise impacts to the project.

### Conclusions

Based on the above analyses, it can be concluded the No Project Alternative would result in similar environmental impacts as the project with several exceptions. This alternative would not include a Planned Development Overlay and therefore would not maximize the efficient and creative use of parcels encouraged in General Plan Policy B.2. Without a Planned Development Overlay, clustering of homes to retain large contiguous areas of open space would not be allowed.

This alternative would result in greater impacts on biological resources than the project because conservation easements on private property might not provide the level of protection for biological resources than expected by conservation easements on designated open space areas. Also, the smaller noncontiguous open space areas would provide less protection of travel corridors within the project area than the larger open space areas proposed for the project.

The No Project Alternative would include more grading and alteration of ridgelines and would be more visible from off-site locations than the project. The two-story apartment buildings in the Multi-Family Residential zone would be built closer to the project boundary, and would be built on the ridgelines along the north and northeast sides of the property. This alternative would therefore be inconsistent with General Plan Policy VII.A.2 (intended to protect ridgelines) and would result in a significant impact that would

not occur under the project. In addition, these buildings would be more visible from off-site areas than the homes proposed for the project. This alternative would also include a single-family parcel on the ridgeline along the northeastern project boundary that may be visible from off-site areas.

Because no clubhouse, pool, or hiking trails would be built, the No Project Alternative could result in more use of City parks by Lumsden Ranch residents than the project.

This alternative would result in one significant aesthetic impact that would not occur under the project, and would not reduce any significant and unavoidable impacts of the project to a less-than-significant level. The No Project Alternative would not meet the project objectives of utilizing a Planned Development Overlay to allow for more flexible design than is permissible under the conventional zoning codes and retaining approximately 50 percent of the project area as open space, with much of the land undisturbed by construction activities.

### **6.3.2 Reduced Density Alternative**

Under the Reduced Density Alternative, 243 homes (one-third fewer than the project) would be constructed. The clubhouse, swimming pool, and trail system would also be constructed. This alternative would include a Planned Development Overlay to allow smaller parcel sizes in the R-1, 20,000 zone to retain large contiguous areas of open space. Because fewer homes would be built, this alternative would include larger open space areas than the project. Similar to the project, this alternative includes all necessary internal and off-site infrastructure, including roads and utility lines, although fewer internal roads and less infrastructure would be needed to serve the reduced number of homes. This alternative also includes retaining walls similar to the project.

This alternative is being considered because it would reduce vehicle trips generated by the project, thereby reducing traffic impacts on the local road system.

The Reduced Density Alternative would meet most of the project objectives, except it would not maximize housing stock consistent with the project area's general plan land use designation and zoning to address regional housing needs. This alternative may not be feasible for the applicant to construct because it may not generate enough revenue to support construction of the required infrastructure, and may require housing prices that are higher than market prices. It may also be legally infeasible. Pursuant to Government Code section 65589.5(j), a city cannot legally require a lower density for a project that is consistent with zoning and general plan densities unless the city makes specific findings that the project will have a "specific, adverse impact upon the public health and safety." The proposed project would not result in this type of impact.

## **Impact Analysis**

### Land Use

Because land uses would be similar to the project, this alternative would be consistent with General Plan land use policies and the policies of the Placerville Airport CLUP. This alternative would be consistent with the General Plan land use and zoning designations,

but the number of new housing units (i.e., 243) would be substantially fewer than allowed under the project area's general plan land use designation and zoning (i.e., 366). Similar to the project, this alternative would not create physical land use conflicts with existing land uses in neighboring areas.

### Population and Housing

The Reduced Density Alternative would include one-third fewer new housing units (243 units) and new residents (705 new residents) than the project. Similar to the project, this alternative would not exceed population and housing projections. This alternative, however, would not maximize housing stock consistent with project area's general plan land use designation and zoning and would therefore not provide the housing units required to meet the City's planned projections for population increase.

### Public Services

The Reduced Density Alternative would generate one-third fewer new residents, and would generate less demand for public services than the project. This alternative, however, would still generate demand for two new sworn officers, plus new equipment and office space, and would generate demand for additional fire protection staff, equipment, and facilities.

This alternative would generate one-third fewer students than the project, but new students would still exceed the capacity of Louisiana Schnell Elementary School. Unlike the project, however, Edwin Markham Middle School would have sufficient capacity to serve new students generated by the Reduced Density Alternative.

### Utilities and Service Systems

The Reduced Density Alternative would generate less demand on utilities and service systems. Reduced wastewater generation would not be sufficient to reduce significant and unavoidable project impacts related to stormwater infiltration/inflow in the City's sewer system under severe storm conditions. This alternative, therefore, would result in similar but reduced impacts on utilities and service systems.

### Hydrology and Water Quality

The Reduced Density Alternative would have similar but reduced impacts related to hydrology and water quality. This alternative would require less grading and construction than the project, thereby reducing the potential for construction-related water quality impacts. This alternative would also include less urban development, and would reduce the amount of urban pollutants and contaminants conveyed to downstream drainages.

### Geology and Soils

The Reduced Density Alternative would have similar but reduced impacts related to geology and soils. This alternative would require less grading and construction than the

project, thereby reducing the potential for construction-related soil erosion. This alternative would result in similar health and safety concerns associated with existing mining features.

### Biological Resources

The Reduced Density Alternative would involve less land conversion than the project, and would therefore retain more wildlife habitat and tree canopy than the project. As a result, this alternative is less likely to affect special status plants and wildlife. The larger open space areas would better protect travel corridors in the project area. This alternative may also result in slightly less impacts to waters of the U.S.

This alternative, therefore, would result in similar but reduced adverse affects on biological resources than the project, but is not expected to reduce any significant project impacts to a less-than-significant level.

### Cultural Resources

No known significant cultural resources occur within the project area. Similar to the project, this alternative would not result in significant impacts to known cultural resources.

### Aesthetics

The Reduced Density Alternative would involve less land conversion and fewer visible features, including homes and streets. This alternative would be less noticeable from off-site areas. Similar to the project, aesthetic impacts would be less than significant.

### Transportation and Circulation

This alternative would include one-third fewer homes than the project, and would generate about one-third fewer vehicle trips than the project. Under this alternative, some significant and unavoidable impacts related to intersection levels of service may be less than significant. All other transportation and circulation impacts would be similar to the project.

### Air Quality

The Reduced Density Alternative would involve less construction than the project, and would therefore, emit less construction-related air pollutants. Similar to the project, however, construction-related air quality impacts would remain significant and unavoidable because no feasible mitigation measures have been identified that would reduce the construction emissions on all days to levels that would not substantially contribute to potential air quality violations of reactive organic gases (ROG) and nitrogen oxides (NOx) in the project vicinity.

This alternative would generate fewer vehicle trips than the project and would, therefore, generate fewer vehicle emissions. Because this alternative would generate fewer vehicle trips than the project, it would generate less carbon monoxide (CO). Similar to the project, therefore, CO emissions would not be expected to exceed CO standards.

### Noise

This alternative would involve less grading and construction and would therefore reduce the duration of construction noise. This alternative would generate fewer vehicle trips than the project and would, therefore, generate less traffic noise. Similar to the project, this alternative would not expose existing residences to a substantial increase in traffic noise levels and not expose residents to excessive noise levels from airport operations. These impacts would be less than significant.

### Conclusions

Based on the above analyses, it can be concluded the Reduced Density Alternative would result in similar environmental impacts as the project with the following exceptions. The Reduced Density Alternative would substantially reduce the population and housing generated by the project and would therefore generate less traffic and reduce overall demand for public services and utilities.

This alternative would include one-third fewer homes than the project, and would generate about one-third fewer vehicle trips than the project. Under this alternative, some significant and unavoidable impacts related to intersection levels of service may be less than significant.

This alternative would generate less construction and vehicle emissions, would reduce the duration of construction noise, and would generate less traffic noise. This alternative would reduce the potential for erosion and water quality impacts because it would require less grading and construction than the project, and would include less urban development.

The Reduced Density Alternative would involve less land conversion than the project, and would therefore retain more wildlife habitat and tree canopy than the project. As a result, this alternative is less likely to affect special status plants and wildlife and the larger open space areas would better protect travel corridors in the project area. The Reduced Density Alternative would be less noticeable from off-site areas because it would involve less land conversion and fewer visible features.

This alternative, however, would not maximize housing stock consistent with project area's general plan land use designation and zoning and would therefore not provide the housing units required to meet the City's planned projections for population increase.

This alternative would not be expected to result in significant impacts that would not occur under the project, but may reduce some significant and unavoidable traffic impacts to a less-than-significant level.

The Reduced Density Alternative would meet most of the project objectives, except it would not maximize housing stock consistent with the project area's general plan land use designation and zoning to address regional housing needs. This alternative may not be feasible for the applicant to construct because it may not generate enough revenue to support construction of the required infrastructure, and may require housing prices that are higher than market prices. It may also be legally infeasible. Pursuant to Government Code section 65589.5(j), a city cannot legally require a lower density for a project that is consistent with zoning and general plan densities; unless the city makes specific findings that the project will have a "specific, adverse impact upon the public health and safety." The proposed project would not result in this type of impact.

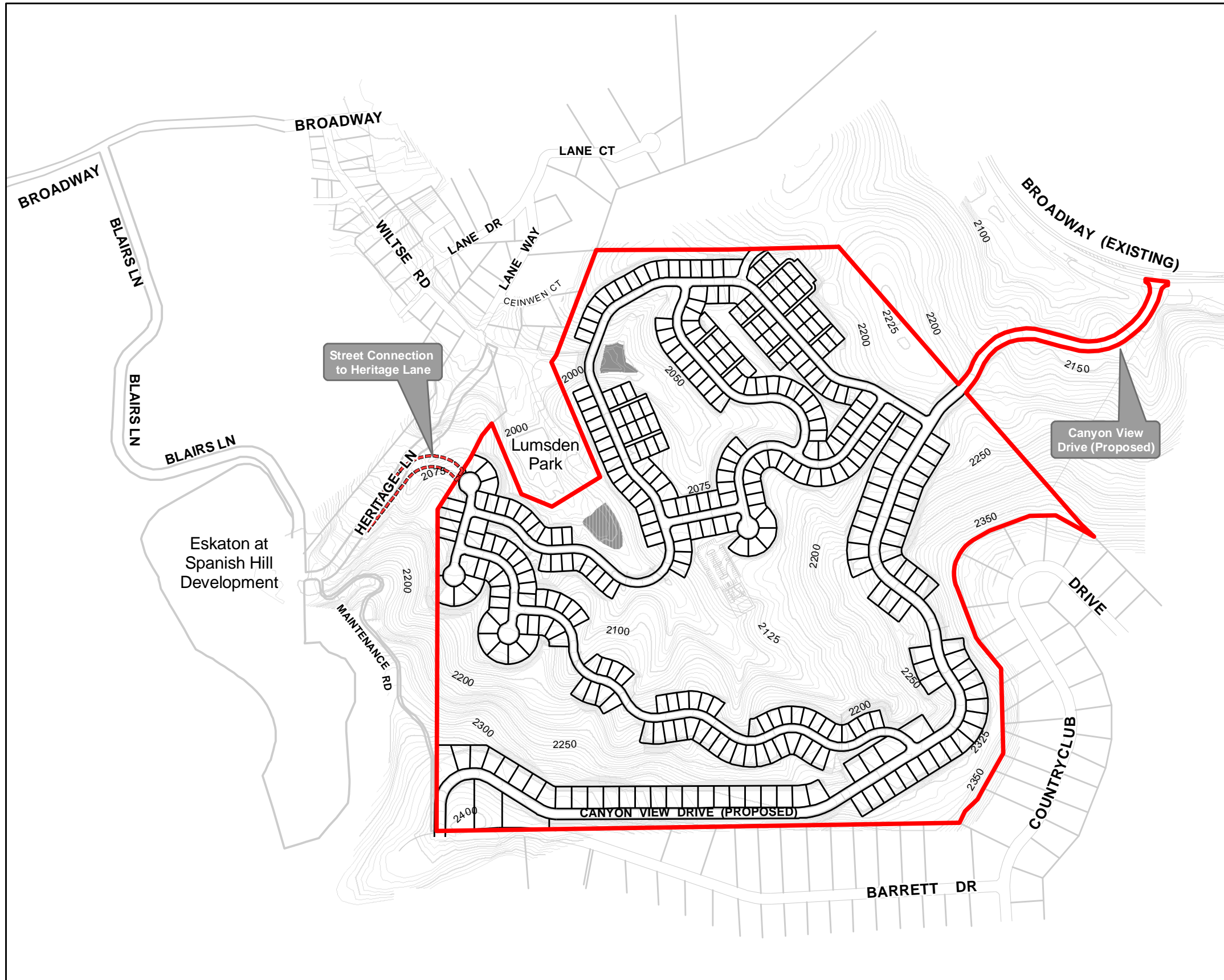
### **6.3.3 Blairs Lane Connection Alternative**

#### **City's Master Street Plan**

The City's Master Street Plan schematically shows several roadways connecting the project area to the rest of Placerville. These roads include a street passing through Lumsden Ranch between Broadway and Barrett Drive following the approximate route of Canyon View Drive, a street connection to Lumsden Ranch from the southern end of Wiltse Road, a street connection to Lumsden Ranch from the southern end of Lumsden Park Access Road, and a street connecting Lumsden Ranch to the City street system on the west. This western street is schematically shown crossing through the western project area boundary and connecting with a City street in the area currently being developed as Eskaton at Spanish Hill. At that point, drivers would have several options including extensions of Blairs Lane, Spanish Ravine Road, or Ridge Court to reach Broadway and a future Barrett Drive Extension to reach Barrett Drive or Cedar Ravine Road.

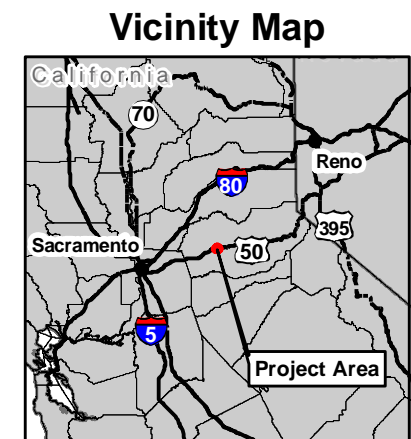
Canyon View Drive would provide a street connection between Broadway and Barrett Drive. The City has determined that Wiltse Road would not feasibly provide vehicle access to Lumsden Ranch for several reasons (see EIR Section 6.2.1 for further discussion). Therefore, street connections with Wiltse Road and the Lumsden Park Access Road are not included in the project. The project also does not include a western street connection to Eskaton.

The City has expressed a strong desire for the project to include a street connecting the west side of Lumsden Ranch to the City street system to the west. Such a street would likely be a short street through the western project boundary (southwest of Lumsden Park) to Heritage Lane (Figure 6-2). Heritage Lane connects to Blairs Lane in the Eskaton development, which provides direct access to Broadway. Heritage Lane is an emergency access road providing one-way (outbound) gated-controlled automobile access from Eskaton downhill to Wiltse Road.

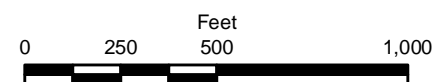


**Legend**

- Project Area
- Street Connection to Heritage Lane

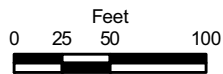
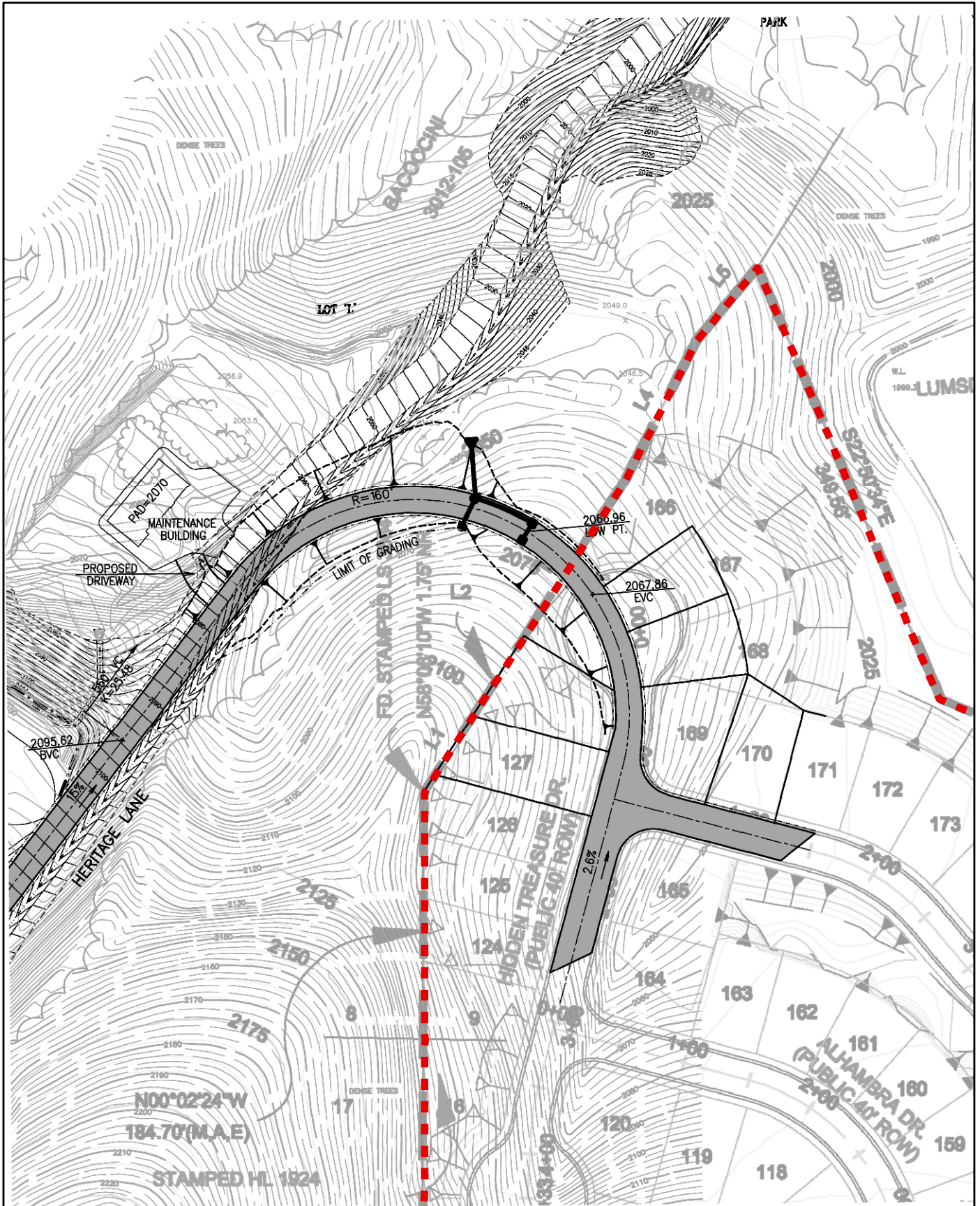


**Figure 6-2  
Blairs Lane  
Connection Alternative**









**Legend**

 Project Area

**Figure 6-3**  
**Blairs Lane Connection**  
**Alternative - Road**  
**Improvement Plan**

Lumsden Ranch  
 City of Placerville





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## Alternative Description

Under this alternative, a public street would be constructed from the western edge of Lumsden Ranch across Eskaton property to Heritage Lane. This street would be approximately 250 feet long and would include a culvert and storm drain inlets to provide drainage (Figures 6-2 and 6-3). Because Heritage Lane is an emergency access road, the section between Lumsden Ranch and Blairs Lane would need to be improved with curbs, gutters, and sidewalks to meet City street standards. The automatic gate at southern (upper) end of Heritage Lane would be removed. The applicant and Lakemont Homes (developer of Eskaton) have negotiated a memorandum of understanding to allow the applicant to build a street connection from Lumsden Ranch to Heritage Lane.

The Blairs Lane Connection Alternative evaluates this street connection at full project level, thereby allowing the City to consider approving this street connection or requiring it as a condition of project approval.

All other land uses and project components would be the same as the project. Similar to the project, this alternative includes all necessary internal and off-site infrastructure, including roads and utility lines. Under this alternative, however, sprinklers would not be provided in the residential units because three access routes to the project would be available.

## Impact Analysis

This alternative would include the same land uses and infrastructure as the project, with the exception of the road connecting Lumsden Ranch to Heritage Lane. This alternative would therefore result in similar impacts related to land use, population and housing, and utilities. The following analysis, therefore, focuses on the environmental effects of constructing and operating the street connection as a component of the project. This alternative is evaluated at full project level.

### Public Services

Because land uses under this alternative would be similar to the project, increased demand for schools, parks, and police and fire services would be similar to the project. This alternative, however, would provide a third access route to the project area for emergency vehicles, thereby lessening the significant but mitigable impact of potential traffic conflicts between fire trucks and private vehicles on Country Club Drive (Impact PS-4).

Response times to the project area from Fire Station 25 using the Blairs Lane Connection would be about six minutes, similar to current response times and response times expected for the project (Johnson 2007). Police response times to the project area using the Blairs Lane Connection would also be similar to current response times and the response times expected for the project (Nielsen 2007).

Similar to the project, the greatest risk of wild fire ignition would occur along roads, in the open space areas, and on large lots (CDS Fire Prevention Planning 2007). The new street connection would minimally increase the risk of wild fires. Similar to the project,

implementing a fire safe plan to minimize risk of wildland fire would reduce this impact to a less-than-significant level.

The Blairs Lane Connection Alternative would therefore result in the following impacts that would be substantially similar to the project. A complete discussion of each impact and mitigation measure is provided in Section 3.3 (and Chapter 6 for cumulative impacts). Impact PS-1 would be less than significant. Each of the remaining impacts would be reduced to less than significant with implementation of the identified mitigation measure.

- Impact PS-1
- Impact and Mitigation Measure PS-2
- Impact and Mitigation Measure PS-3
- Impact and Mitigation Measure PS-4
- Impact and Mitigation Measure PS-5
- Impact and Mitigation Measure PS-6
- Cumulative Impact PS-1
- Cumulative Mitigation Measures PS-1a, PS-1b, and PS-2c

### Hydrology and Water Quality

The Blairs Lane Connection Alternative would include slightly more grading and construction than the project, thereby increasing the potential for construction-related water quality impacts. Similar to the project, however, implementing best management practices to control construction-related stormwater runoff, erosion, and sedimentation would reduce this impact to a less-than-significant level.

The new street connection would increase surface runoff, but the drainage facilities included in the street design would ensure project runoff has a minimal adverse effect on the hydrology of downstream drainages.

The Blairs Lane Connection Alternative would therefore result in the following impacts that would be substantially similar to the project. A complete discussion of each impact and mitigation measure is provided in Section 3.5 (and Chapter 6 for cumulative impacts). Impacts HWQ-3 and HWQ-5 would be less than significant. Each of the remaining impacts would be reduced to less than significant with implementation of the identified mitigation measure.

- Impact and Mitigation Measure HWQ-1
- Impact and Mitigation Measure HWQ-2
- Impact HWQ-3
- Impact and Mitigation Measure HWQ-4
- Impact HWQ-5
- Cumulative Impact HWQ-1
- Cumulative Mitigation Measures HWQ-1a and HWQ-1b

## Geology and Soils

The Blairs Lane Connection Alternative would include slightly more grading and construction than the project, thereby increasing the potential for construction-related soil erosion. Similar to the project, however, implementing best management practices during grading activities to control soil erosion would reduce this impact to a less-than-significant level. There are no known mining features in the location of the street that would connect Lumsden Ranch to Heritage Lane. Therefore, no additional hazards related to mining features would occur under this alternative.

The Blairs Lane Connection Alternative would therefore result in the following impacts that would be substantially similar to the project. A complete discussion of each impact and mitigation measure is provided in Section 3.6. Each impact would be reduced to less than significant with implementation of the identified mitigation measure.

- Impact and Mitigation Measure GS-1
- Impact and Mitigation Measure GS-2

## Biological Resources

### *Biological Setting*

SWCA Environmental Consultants conducted a biological survey and wetland determination within the potential construction area of the new road that would be constructed under this alternative (Appendix L).

The alternative road alignment consists of urban (disturbed) and black oak–foothill pine habitats. A small drainage flows northeast along the eastern side of Heritage Lane and crosses the alternative road alignment. The urban (disturbed) habitat consists of a paved road (Heritage Lane), its adjacent road shoulder, and a berm (about 4 feet high). The shoulder consists of rocks placed for erosion control. Most of this habitat is lacking vegetation, although some upland plants have started growing between the rocks (SWCA 2008).

The black oak–foothill pine habitat occurs on the surrounding hills and within the alternative road alignment between Heritage Lane and Lumsden Ranch. Plant species within the black oak–foothill pine habitat are similar to those within the Lumsden Ranch project area (see Section 3.7 and Appendix L for a description).

An ephemeral drainage flows northeast, following the east side of Heritage Lane on the east side of the berm. It conveys runoff from a small hill adjacent to Heritage Lane, through a ponded area, and into the reservoir at Lumsden Park. The drainage is approximately 2 feet wide upstream of the ponded area and is between 2 and 3 feet wide downstream of the ponded area (these widths represent the ordinary high water mark of the drainage). The drainage is not well defined below the ponded area and in some areas is littered with pine needles; however, the general drainage pattern is evident by the lack of vegetation and exposed soil where pine needles are not present. The ponded area is in a depressed area between the berm and hill that contained several inches of water at the time of the field survey. Rainfall from recent storms was

the likely source of the ponded water. Willows (*Salix gooddingii* and *S. laevagata*) were inundated in the ponded area, and patches of bulrush (*Scirpus* sp.) were present at the edges of the ponded water. Cattails (*Typha* sp.) were also present along the drainage downstream of the ponded area and outside of the alternative road alignment. As discussed in Appendix L, the drainage and ponded area are likely considered waters of the U.S. because they drain into the reservoir at Lumsden Park, but neither feature is considered a wetland (SWCA Environmental Consultants 2008).

Similar to the project area, five special status plant species may occur in the alternative road alignment. These include Nissenan manzanita, Pleasant Valley mariposa lily, Brandegees clarkia, Parry's horkelia, and oval-leaved viburnum. None of these plants is federally or state listed, but they are considered rare in California according to the California Native Plant Society. None of these species was detected during reconnaissance-level field surveys, but the presence of suitable habitat indicates that they may occur.

Nearby disturbance from construction activities associated with the Eskaton development and the proximity of residential uses and vehicle traffic along Wiltse Road to the north likely reduce the suitability of this habitat for nesting or roosting birds and bats. Similar to the project area, sensitive bird species that may forage in the habitat within or adjacent to the alternative alignment include Cooper's hawk, red-shouldered hawk, red-tailed hawk, American kestrel, barn owl, western screech owl, northern pygmy owl, and great horned owl. Also similar to the project area, the alternative road alignment provides suitable foraging habitat for five special-status bats species: pallid bat, Townsend's big-eared bat, silver-haired bat, long-eared myotis, and Yuma myotis.

### *Impact Discussion*

The plant communities and habitat types within the alternative road alignment are similar to those found within the project area. This alternative would therefore result in similar but slightly increased adverse affects on biological resources as compared to the project. This alternative, however, is not expected to result in any significant impacts that would not occur under the project.

Construction of the new road for the Blairs Lane alternative would result in the loss of approximately 0.5 acre of black oak–foothill pine habitat, placement of fill material into less than 0.1 acre of waters of the U.S., and removal of a small amount of riparian vegetation. Special status plants, if present in the black oak–foothill pine woodland, may be adversely affected during grading activities through removal of individuals or local populations. The loss of upland and riparian habitat could displace wildlife, including special status birds or bats, that use it for foraging, but nesting or roosting activities are not expected to be affected. This loss of habitat is considered minimal because of the small amount of habitat that would be affected. Disturbance from construction activities would preclude wildlife from using the area, and vehicle traffic during operation would also create a disturbance that would further reduce the quality of adjacent habitat.

The Blairs Lane Connection Alternative would therefore result in the following impacts that would be substantially similar to the project. A complete discussion of each impact and mitigation measure is provided in Section 3.7 (and Chapter 6 for cumulative

impacts). Impacts BR-1, BR-2, and BR-6 would be less than significant. Each of the remaining impacts would be reduced to less than significant with implementation of the identified mitigation measure.

- Impact BR-1
- Impact BR-2
- Impact and Mitigation Measure BR-3
- Impact and Mitigation Measure BR-4
- Impact and Mitigation Measure BR-5
- Impact BR-6
- Impact and Mitigation Measure BR-7
- Impact and Mitigation Measure BR-8
- Impact and Mitigation Measure BR-9
- Cumulative Impact and Mitigation Measure BR-1
- Cumulative Impact and Mitigation Measure BR-2
- Cumulative Impact and Mitigation Measure BR-3

### Cultural Resources

*The new section of road would cross through a small portion of the historic-era Spanish Hill Mining Complex (CA-ELD-1340H), which is not eligible for listing on the California Register of Historical Resources (CRHR) or the National Register of Historic Places (NRHP) and has been previously disturbed in this area by construction of Heritage Lane, Eskaton, and Blairs Lane. Similar to the project, ground disturbance for construction of the new road could affect undocumented cultural and paleontological resources.*

The Blairs Lane Connection Alternative would therefore result in the following impacts that would be substantially similar to the project. A complete discussion of each impact and mitigation measure is provided in Section 3.8. Each impact would be reduced to less than significant with implementation of the identified mitigation measure.

- Impact and Mitigation Measure CR-1
- Impact and Mitigation Measure CR-2
- Impact and Mitigation Measure CR-3

### Aesthetics

Under this alternative, a new 250-foot-long street would be visible from some off-site areas to the north and northeast. However, this road would appear consistent with other roads in the project area, including Heritage Lane, which runs from Eskaton at Spanish Hill to Wiltse Road.

This alternative would include grading of the ridge between Lumsden Ranch and Heritage Lane, a distance of about 200 feet. This grading work would not substantially alter the ridgeline. In addition, this ridge is not shown as a secondary ridgeline in Figure IX-1 of the General Plan Background Report (City of Placerville 1989b). Similar to the project, this alternative would be consistent with General Plan Policy VII.A.2.

The Blairs Lane Connection Alternative would therefore result in the following impacts that would be substantially similar to the project. A complete discussion of each impact is provided in Section 3.9. Similar to the project, each impact would be less than significant.

- Impact A-1
- Impact A-2
- Impact A-3

## Transportation and Circulation

### *Scope of Analysis*

A full analysis of transportation and circulation issues was conducted for the Blairs Lane Connection Alternative by Fehr & Peers. Appendix H of this EIR includes technical discussions and data sheets used for the analysis.

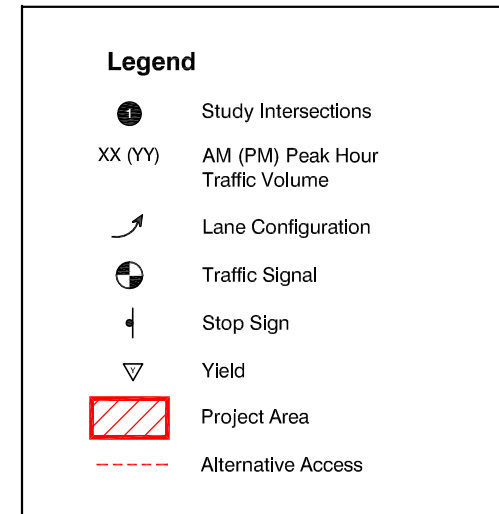
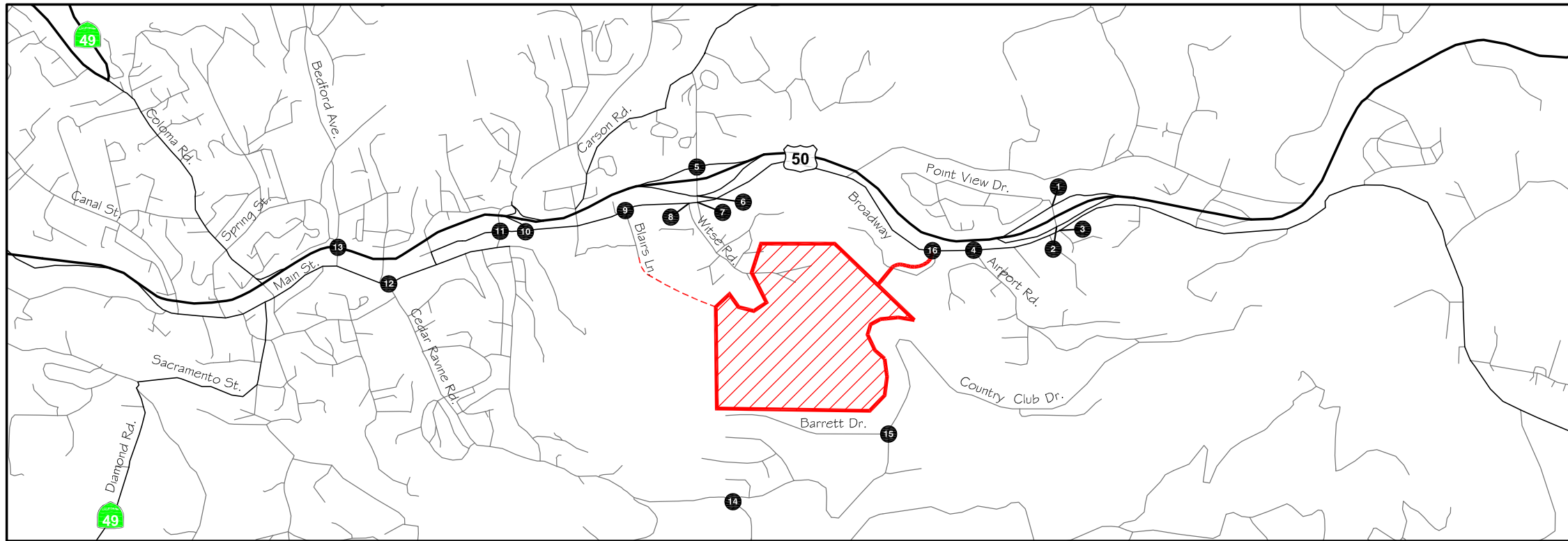
Each study facility identified in EIR Section 3.10 was reviewed to determine if this alternative would result in greater, equal, or lesser impacts than the Lumsden Ranch project.

Changes in travel patterns between the Lumsden Ranch project and the Blairs Lane Connection Alternative were reviewed to determine study intersections and/or freeway facilities that may be affected differently by the Blairs Lane Connection Alternative. No travel pattern changes would occur except at the following locations. Therefore, new operational analysis for the Blairs Lane Connection Alternative was limited to these locations:

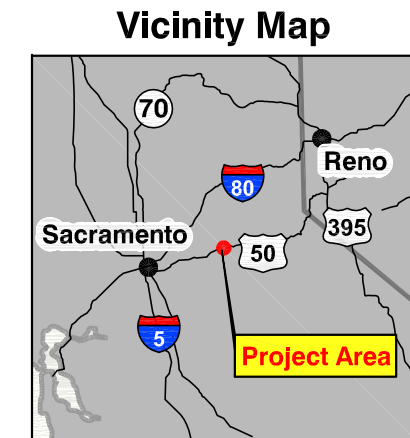
- Schnell School Road/Broadway
- Wiltse Road/Broadway
- Blairs Lane/Broadway
- Canyon View Drive/Broadway

Figures 6-4, 6-5, and 6-6 present traffic volume forecasts for Existing Plus Project Alternative, Near Term Year Plus Project Alternative, and Long Term Cumulative Plus Project Alternative conditions, respectively. These traffic volume forecasts were used to determine the level of service (LOS) at each of the four potentially affected study intersections.





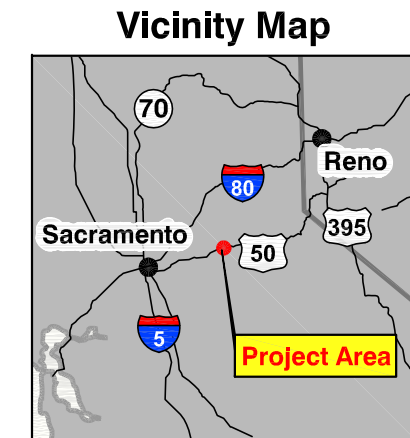
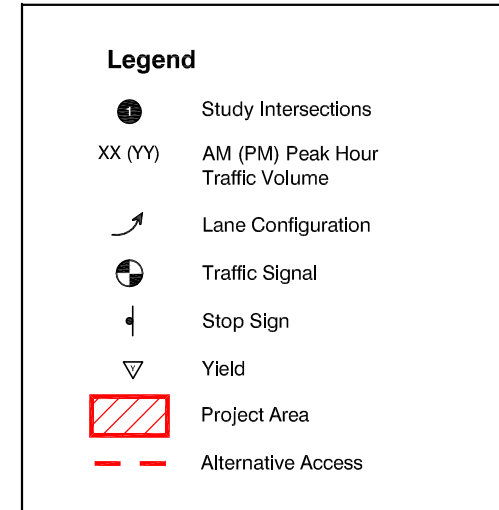
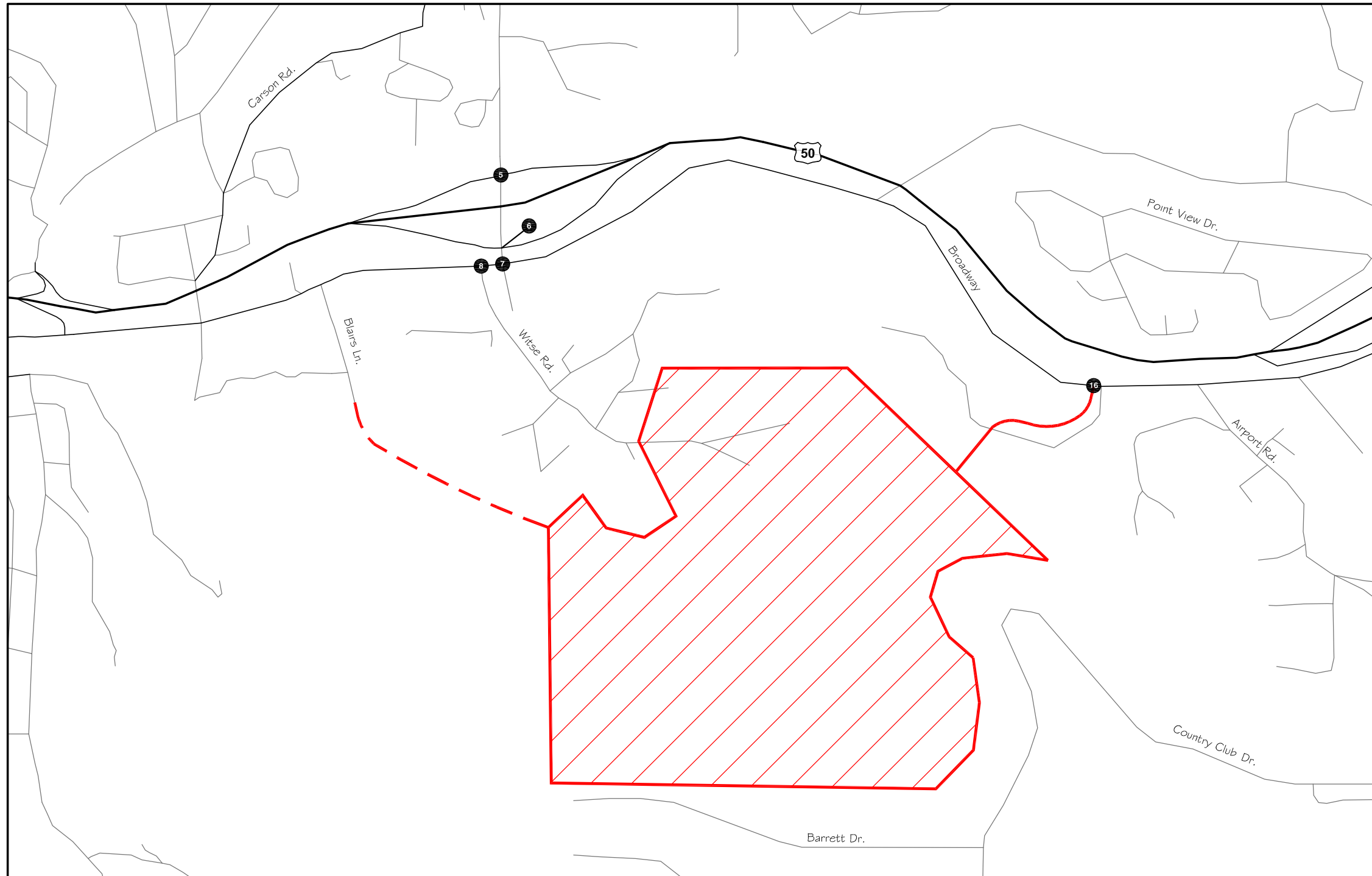
1. Point View Dr./US 50 WB Ramps	2. Point View Dr./US 50 EB Ramps	3. Point View Dr./Monterey Rd./Broadway	4. Airport Rd./Broadway	5. Schnell School Rd./US 50 WB Ramps	
<p>Same as Project</p>	<p>Same as Project</p>	<p>Same as Project</p>	<p>Same as Project</p>	<p>Same as Project</p>	
6. Schnell School Rd./US 50 EB Ramps	7. Schnell School Rd./Broadway	8. Wiltse Rd./Broadway	9. Blairs Ln./Broadway	10. US 50 EB Ramps/Broadway	
<p>Same as Project</p>	<p>Same as Project</p>	<p>Same as Project</p>	<p>Same as Project</p>	<p>Same as Project</p>	
11. Mosquito Rd./Broadway	12. Cedar Ravine Rd./Main St.	13. Bedford Ave./US 50	14. Cedar Ravine Rd./Country Club Dr.	15. Country Club Dr./Barrett Dr.	16. Canyon View Dr./Boadway
<p>Same as Project</p>	<p>Same as Project</p>	<p>Same as Project</p>	<p>Same as Project</p>	<p>Same as Project</p>	<p>Same as Project</p>



**Figure 6-4**  
**Peak Hour Traffic Volumes**  
**and Lane Configurations:**  
**Existing Plus Alternative**  
**Project Conditions**







5. Schnell School Rd./US 50 WB Ramps	6. Schnell School Rd./US 50 EB Ramps	7. Schnell School Rd./Broadway	8. Wiltse Rd./Broadway	16. Canyon View Dr./Boadway
<p>167 (96) 109 (107) 119 (19) 0 (0) 72 (56)</p> <p>US 50 WB On-Ramp US 50 WB Off-Ramp</p> <p>247 (269) 223 (192)</p> <p>Same as Project</p>	<p>163 (141) 18 (22)</p> <p>US 50 EB Off-Ramp US 50 EB On-Ramp</p> <p>142 (101) 2 (0) 169 (360)</p> <p>328 (360) 75 (212)</p> <p>Same as Project</p>	<p>208 (207) 3 (10) 116 (274)</p> <p>150 (201) 207 (222) 2 (2)</p> <p>Broadway</p> <p>221 (348) 123 (345) 1 (6)</p> <p>0 (1) 1 (2) 0 (2)</p>	<p>403 (392) 12 (38)</p> <p>Broadway</p> <p>326 (661) 10 (26)</p> <p>18 (21) 19 (38)</p>	<p>163 (115) 12 (35)</p> <p>Broadway</p> <p>76 (225) 35 (116)</p> <p>102 (67) 35 (28)</p>

**Figure 6-5  
Peak Hour Traffic Volumes  
and Lane Configurations:  
Near Term Year Plus  
Alternative Project  
Conditions**









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### *Impact Analysis – Operational Impacts*

#### Existing Plus Project Scenario – Project-specific Impacts

The Blairs Lane Connection Alternative would result in the following impacts that would be the same as with the project. A complete discussion of each impact and mitigation measure is provided in Section 3.10. Each impact would be significant and unavoidable as discussed in Section 3.10.

- Impact and Mitigation Measure TT-1
- Impact and Mitigation Measure TT-2

#### Near Term Year Scenario

The Blairs Lane Connection Alternative would result in the following impacts that would be the same as with the Lumsden Ranch project. A complete discussion of each impact and mitigation measure is provided in Section 3.10. Each impact would be significant and unavoidable as discussed in Section 3.10.

- Impact & Mitigation Measure TT-3
- Impact & Mitigation Measure TT-4

#### Long Term Cumulative Scenario – Cumulative Impacts

The Blairs Lane Connection Alternative would result in the following impacts that would be the same as with the Lumsden Ranch project. A complete discussion of each impact and mitigation measure is provided in Section 3.10. Each impact would be significant and unavoidable as discussed in Section 3.10, unless otherwise noted.

- Impact and Mitigation Measure TT-5
- Impact and Mitigation Measure TT-6
- Impact and Mitigation Measure TT-7 reduced to Less than Significant
- Impact and Mitigation Measure TT-8
- Impact and Mitigation Measure TT-9
- Impact and Mitigation Measure TT-10
- Impact and Mitigation Measure TT-11

### *Impact Analysis – Non-operational Impacts*

The Blairs Lane Connection Alternative along with amendment of the City's Master Street Plan would mitigate Impact TT-12 (Inconsistency with the City's Master Street Plan).

The Blairs Lane Connection Alternative would result in the following impacts that would be the same as with the Lumsden Ranch project. A complete discussion of each impact and mitigation measure is provided in Section 3.10. Similar to the project, each of the following impacts would be reduced to less-than-significant with implementation of the identified mitigation measure, unless otherwise noted.

- Impact and Mitigation Measure TT-13
- Impact and Mitigation Measure TT-14, Significant and Unavoidable
- Impact and Mitigation Measure TT-15
- Impact and Mitigation Measure TT-16
- Impact and Mitigation Measure TT-17
- Impact and Mitigation Measure TT-18
- Impact and Mitigation Measure TT-19
- Impact and Mitigation Measure TT-20
- Impact and Mitigation Measure TT-21

### Air Quality

The Blairs Lane Connection Alternative would include more grading and construction than the project, thereby generating more construction emissions than the project. Similar to the project, construction-related air quality impacts would remain significant and unavoidable because no feasible mitigation measures have been identified that would reduce the construction emissions on all days to levels that would not substantially contribute to potential air quality violations of ROG and NOx in the project vicinity.

Because the land uses at Lumsden Ranch would be similar to the project, this alternative would result in similar significant but mitigable impacts related to air pollutant emissions from vehicles and fireplaces.

The Blairs Lane Connection Alternative would therefore result in the following impacts that would be substantially similar to the project. A complete discussion of each impact and mitigation measure is provided in Section 3.11. Impacts AQ-1, AQ-4, and AQ-5 would be less than significant. Impact AQ-3 would be reduced to less than significant with implementation of the identified mitigation measure. For Impacts AQ-2 and AQ-6, the identified mitigation measures would not reduce the impact to less than significant.

- Impact AQ-1
- Impact and Mitigation Measure AQ-2
- Impact and Mitigation Measure AQ-3
- Impact AQ-4
- Impact AQ-5
- Impact and Mitigation Measure AQ-6

### Noise

#### *Setting*

Similar to the proposed project, the new areas potentially affected by traffic noise under this alternative (including the residences of Eskaton at Spanish Hill) have a noise environment of a quiet rural or suburban area but are somewhat exposed to traffic noise



that is audible from SR 50, occasional aircraft noise from operations originating at the Placerville Airport, and some noise from existing traffic on Blairs Lane.

To characterize the existing ambient noise conditions along the section of Blairs Lane in Eskaton that would experience additional traffic under this alternative, three short-term noise measurements (5 minutes each) were made 25 feet from the centerline of Blairs Lane at a location near existing residences lining Blairs Lane north of Heritage Lane. The noise measurements are summarized in Table 6-3. These noise measurements supplement the noise measurements describing the project as presented in Section 3.12 (see Table 3.12-3 and Figures 3.12-2 and 3.12-3).

As shown in Table 6-3, average existing noise levels during the three 5-minute periods ranged from 54 to 56 dB, and the background noise level (L90s) when no discrete noise sources were audible was 45 dB during each of the three periods. From the measurement location in Eskaton at Spanish Hill, U.S. 50 was somewhat audible, ranging from 44 to 47 dB. Some airplane takeoffs from Placerville Airport were clearly audible (above the very quiet background), and an airplane flying overhead for a short period of time was also audible. Other noise sources included one person walking in the area. Approximately 10 cars traveled on Blairs Lane near the noise meter during the noise measurements.

*Sensitive Receptors*

Sensitive receptors for Blairs Lane Alternative include all the sensitive receptors for the project as described in Section 3.12 and the additional residences along Blairs Lane in the vicinity of (and north of) the intersection of Blairs Lane and Heritage Lane. These residences are part of the Eskaton at Spanish Hill development. No other residences are located along Blairs Lane south of Broadway.

**Table 6-3. Noise Measurements on Blairs Lane**

Location	Time Period	Leq (dB)	Noise Sources
Site A-1: Near intersection of Blairs Lane and Eskaton Drive. Approximately 20 feet from the center of Blairs Lane north of the gated intersection of Blairs Lane and Heritage Lane.	Wednesday, January 7, 2009, 4:40–4:55 p.m.	5-minute Leq's (dB): 53, 54, 55  5-minute L90s (dB): 45, 45, 45	Very quiet. U.S. 50 in distance. 44–47 dB; small plane activity from Placerville Airport, 50–54 dB. Plane overhead, 55–61 dB. Very few cars passing during measurement period (≈10 total).

*Impact Discussion*

The Blairs Lane Connection Alternative would include slightly more grading and construction than the project. Construction of the new street connection and improvements to Heritage Lane would bring construction activities and resulting noise closer to the residences in Eskaton than the project. Similar to the project, however, road construction would be temporary, and construction noise mitigation measures would be

available to reduce this impact to a less-than-significant level. This construction noise impact would therefore be substantially similar to the project.

Under this alternative, residential land uses (and proposed locations of residences) would be similar to those proposed for the project. Similar to the project, therefore, this alternative would result in a less-than-significant impact related to aircraft noise.

Similar to the project, the Blairs Lane Alternative would not expose existing or proposed residences or other sensitive receptors, including residences along Blairs Lane, to excessive traffic noise. Under this alternative, traffic would cause noise levels on nearby roads to increase by 0.4 to less than 5.0 dBA and range from 54.2 dBA Leq to 66.8 dBA Leq (Appendix J, Table NA-1). Traffic on Blairs Lane south of Broadway would cause noise levels along Blairs Lane to increase by 2.4 dBA. The increase in noise levels along all roads including Blairs Lane would be minor (less than 5 dBA and negligible based on existing noise levels) and would not be considered noticeable at residences 50 feet or further from the roadway centerline. This would be a less-than-significant impact.

Cumulative traffic noise levels under this alternative would be similar to that of the project; however, cumulative traffic noise levels would increase along Blairs Lane south of Broadway. As shown in Table NA-1 (Appendix J), cumulative traffic noise along Blairs Lane south of Broadway would increase by 4.5 dBA (from 56.5 to 61.0 dBA). The 4.5-dBA cumulative increase would be minor (less than 5 dBA) and would not be considered noticeable at residences 50 feet or further from the roadway centerline. It should be noted that 3.3 dBA of this increase is attributable to cumulative traffic noise increases that would occur regardless of whether any development occurs at Lumsden Ranch. Cumulative traffic noise increases under this alternative would be less than significant for residences along Blairs Lane in Eskaton.

Similar to the project, however, the increase in traffic noise would be significant along Airport Road and Barrett Drive, affecting homes within approximately 50 feet of the centerlines. Cumulative traffic noise with this alternative along these two roads would increase to 62.9 dBA and 55.2 dBA, respectively, resulting in increased noise levels of 6.18 dBA and 5.44 dBA, respectively, from existing levels. These increases would be noticeable to adjacent residences along Airport Road and Barrett Drive, resulting in a significant impact.

The Blairs Lane Connection Alternative would therefore result in the following impacts that would be substantially similar to that of the project. A complete discussion of each impact and mitigation measure is provided in Section 3.12. Impact N-1 would be reduced to less than significant with implementation of the identified mitigation measures. Impacts N-2 and N-3 would be less than significant. For Impact N-4, the identified mitigation measure would not reduce the impact to less than significant.

- Impact N-1 and Mitigation Measures N-1a, N-1b, and N-1c
- Impact N-2
- Impact N-3
- Impact and Mitigation Measure N-4 (Cumulative)

### *Conclusions*

Based on the above analyses, it can be concluded that the Blairs Lane Connection Alternative would result in environmental impacts that are substantially similar to the project, with the following exceptions.

Operational traffic impacts would be similar to the project. However, this alternative would remove a significant but mitigable impact related to consistency with the City's Master Street Plan (Impact TT-12).

This alternative would provide a third access route to Lumsden Ranch for emergency vehicles, but would not reduce (i.e., improve) response times to Lumsden Ranch for emergency service vehicles.

This alternative would shift some of the project vehicle trips from Canyon View Drive and Barrett Drive to Blairs Lane, thereby shifting a portion of the vehicle noise generated by the project to Blairs Lane. This alternative, however, would not result in any significant traffic noise impacts for residences along Blairs Lane.

The Blairs Lane Connection Alternative would include slightly more grading and construction than the project, thereby slightly increasing the potential for construction-related water quality impacts, erosion, impacts on undocumented cultural resources, emission of air pollutants from construction equipment, and construction noise. The Blairs Lane Connection Alternative would involve slightly more land conversion than the project, and could have a greater effect on biological resources. This alternative, however, would result in impacts substantially similar to that of the project with respect to these issues.

A new 250-foot-long street would be visible from some off-site areas to the north and northeast. This road would appear consistent with other roads in the project area, including Heritage Lane.

In summary, most impacts would be substantially similar to the project. However, this alternative would remove a significant impact related to consistency with the City's Master Street Plan. This alternative would meet all project objectives.

## **6.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

As shown by the previous analysis, the Reduced Density Alternative can be considered the environmentally superior alternative because it would generate about one-third fewer vehicle trips than the project, thereby reducing vehicle noise and emissions and possibly reducing some significant and unavoidable traffic impacts to a less-than-significant level, reduce overall demand for public services and utilities, generate less construction and vehicle emissions and reduce the duration of construction noise, reduce the potential for erosion and water quality impacts, retain more wildlife habitat and tree canopy than the project, be less likely to affect special status plants and wildlife, and be less noticeable from off-site areas.

The Reduced Density Alternative would meet most of the project objectives, except it would not maximize housing stock consistent with project area's general plan land use

designation and zoning to address regional housing needs. This alternative may not be feasible for the applicant to construct because it may not generate enough revenue to support construction of the required infrastructure, and may require housing prices that are higher than market prices. It may also be legally infeasible, pursuant to Government Code section 65589.5(j).

# CHAPTER 7

## OTHER SECTIONS REQUIRED BY CEQA

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This section discusses the significant irreversible environmental changes, significant and unavoidable environmental impacts, and growth-inducing impacts statutorily required by the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21100(b)(2)). Significant and unavoidable environmental impacts are significant impacts that can not be mitigated to a level of insignificance (CEQA 15126.2[b]). Growth-inducing impacts are the ways in which the project could foster economic or population growth, or the construction of additional housing either directly or indirectly, in the surrounding environment (CEQA Section 15126.2[d]).

### 7.1 SIGNIFICANT AND UNAVOIDABLE IMPACTS

**Impact LU-3:** The project would create physical land use conflicts with existing land uses in neighboring areas related to air pollutant emissions and cumulative traffic noise.

**Impact U-2:** The project would increase wastewater volumes by 0.09 million gallons per day. Existing and proposed facilities would be capable of treating and conveying the increased volume of wastewater during typical weather conditions, but project wastewater could contribute incrementally to existing problems caused by infiltration/inflow during severe storm conditions.

**Impact AQ-2:** Construction activities would generate dust and produce vehicle emissions that would exceed established emissions thresholds for ROG, NO<sub>x</sub>, and PM<sub>10</sub>, and grading activities could release asbestos fibers.

**Impact AQ-6:** Implementation of the proposed project would contribute to a cumulative air quality impact in the project area.

**Impact N-4 (Cumulative).** Project traffic, in combination with cumulative project traffic, would substantially increase traffic noise levels in the project vicinity in 2025.

**Impact TT-1:** The project would unacceptably degrade traffic operations at the Schnell School Road/U.S. 50 westbound ramps intersection.

**Impact TT-2:** The project would unacceptably exacerbate degraded traffic operations at the U.S. 50 eastbound ramps/Broadway intersection.

**Impact TT-3:** The project would unacceptably degrade traffic operations at the Schnell School Road/U.S. 50 westbound ramps intersection.

**Impact TT-4:** The project would unacceptably degrade traffic operations at the Schnell School Road/U.S. 50 eastbound ramps intersection.

**Impact TT-5:** The proposed and related projects would unacceptably degrade traffic operations throughout the Schnell School Road/Broadway/Wiltse Road/U.S. 50 ramps roadway system (i.e., the Schnell School Road System)

**Impact TT-6:** The proposed and related projects would unacceptably degrade traffic operations at the Mosquito Road/Broadway intersection.

**Impact TT-8:** The proposed and related projects would unacceptably degrade traffic operations at the U.S. 50 eastbound ramps/Broadway intersection.

**Impact TT-9:** The proposed and related projects would unacceptably degrade traffic operations at the Bedford Avenue/U.S. 50 intersection.

**Impact TT-10:** The proposed and related projects would unacceptably degrade traffic operations at the Point View Drive/U.S. 50 westbound ramps intersection.

**Impact TT-11:** The proposed and related projects would unacceptably degrade traffic operations at the Point View Drive/U.S. 50 eastbound ramps intersection.

**Impact TT-14:** The project would not provide adequate pedestrian access to Lumsden Park or Louisiana Schnell Elementary School.

**Impact CC-1:** Project construction would generate more than 11 metric tons, and project operation would generate more than 939 metric tons, of CO<sub>2</sub> equivalents per year.

## **7.2 GROWTH-INDUCING IMPACTS**

The project would include the development of 366 homes, thereby directly increasing Placerville's population by about 1,047 persons. The project does not include commercial land uses and would therefore not directly induce permanent employment within the city. The project would generate short-term construction related employment; however, construction employees would be expected to commute to the project area from their homes in the project region. Project residents would generate the need for goods and services within the city and the project vicinity, and would therefore indirectly induce employment opportunities. This indirect increase in employment opportunities, however, would not be expected to substantially increase the population within the city. The proposed residential land uses would therefore directly induce substantial population and housing growth, but would not substantially induce employment-generated population growth.

### **Canyon View Drive**

The project would include a new street (Canyon View Drive) through the project area between Broadway and Barrett Drive. The road would generally follow an existing unpaved private road through two parcels (Assessor's Parcel Numbers [APNs] 049-170-01 and 049-170-03) between Broadway and the project area. Canyon View Drive would provide improved access to these parcels. The landowner for parcels 049-170-01 and 049-170-03 also owns two adjacent parcels (APNs 049-170-06 and 049-170-08). As a

result of improved access, development pressure on all of these parcels would increase, which would be a growth-inducing effect.

Parcels 049-170-01 and 049-170-03 total 16 acres. Both parcels have split zoning, each with a  $\pm 250$ -foot-deep Highway Commercial (HWC) zone fronting the entire length of Broadway on each parcel, an R-3 Multi-Family Residential zone southeast of the HWC zone, and an R-1, 20,000 Single-Family Residential zone south of the R-3 zone. Build-out of the R-1 and R-3 zones on these two parcels could result in construction of up to  $\pm 9$  new homes in the R-1 zone, and up to  $\pm 80$  new multi-family dwelling units in the R-3 zone. Canyon View Drive would remove an obstacle to build-out of these parcels.

Development pressure on the HWC zone from Canyon View Drive would be less than the R-1 and R-3 zones because, similar to other nearby highway commercial land uses, Broadway could provide access to the HWC zone on these parcels.

Parcels APN 049-170-06 and 049-170-08 total 7.5 acres and are zoned R-3 with a maximum density of 12 dwelling units per acre. Build-out of these two parcels could result in construction of up to  $\pm 90$  new multi-family dwelling units. Canyon View Drive would remove an obstacle to build-out of these parcels.

In addition, a 6.9-acre undeveloped parcel (APN 004-201-02) located directly north of the project area is accessed through the Lumsden Ranch property. This parcel is zoned R-3 with a maximum density of 12 dwelling units per acre. Build-out of this parcel could result in construction of up to  $\pm 83$  new multi-family dwelling units. The proposed street system within Lumsden Ranch would provide improved vehicle access to this parcel, and the project's water and wastewater infrastructure would be located very close to the southern edge of this parcel. The project would therefore remove obstacles to build-out of this parcel. It is important to note that (to date) no proposals to develop any of these parcels have been submitted to the City.

Growth induced on these parcels by new project streets would likely result in adverse environmental effects similar to those caused by the proposed project. The growth-inducing effects, however, would likely impact the environment to a lesser degree than the project because these parcels are smaller than the project area (about 23-percent the size of Lumsden Ranch) and would result in less development than the project (about 72-percent).

## **Sewer Lines**

The project would involve construction of new sewer lines in Wiltse Road and Broadway. The Wiltse Road sewer line would be constructed primarily to serve Lumsden Ranch. Some excess capacity may be available to serve new development in the vicinity of Wiltse Road; however, this portion of the city is nearly built-out. The Wiltse Road sewer line would therefore not be expected to substantially induce growth.

The Broadway sewer trunk line, however, would be built to serve the project and to improve the capacity of the City's sewer system. According to the City's Wastewater Collection System Master Plan, this new section of sewer line is needed to help reduce infiltration/inflow into the sewer system during severe storm events and thereby reduce sewer overflows. This new section of sewer line would also be sized with sufficient

capacity to serve future customers within the City's service area upstream of the new trunk line. The Broadway sewer line would therefore remove an obstacle to growth in the City's sewer service area (i.e., sphere of influence), and could increase development pressure in the service area, which would be a growth-inducing effect.

Growth induced by the Broadway sewer line would likely result in adverse environmental effects similar to those caused by the proposed project. Cumulative impacts caused by reasonably foreseeable probable future projects are evaluated in Chapter 4. Some of these projects would benefit from the Broadway sewer line. Any other future projects served by the Broadway sewer line are not reasonably foreseeable; therefore, evaluating their environmental impacts would be speculative.



# CHAPTER 8

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# CHAPTER 9

## ACRONYMS

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AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act
APCD	Air Pollution Control District
ALUC	Airport Land Use Commission
AQAP	Air Quality Attainment Plan
AQMD	Air Quality Management District
ARPA	Archaeological and Historic Preservation Act
BAT	Best Available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
Blueprint	Sacramento Region Blueprint
BMP	best management practices
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH <sub>4</sub>	methane
CLUP	Comprehensive Land Use Plan
CNDDB	California Natural Diversity Data Base
CNEL	community noise equivalent level
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CWA	Clean Water Act
dB	decibels
DHS	Department of Health Service
DPM	diesel particulate matter
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EID	El Dorado Irrigation District
EDCAQMD	El Dorado County Air Quality Management District
EDCFPD	El Dorado County Fire Protection District
EDUHSD	El Dorado Union High School District
EPA	Environmental Protection Agency
ESA	Federal Endangered Species Act
FAA	Federal Aviation Administration

FCAA	Federal Clean Air Act
FCAAA	Federal Clean Air Act Amendments
FGC	California Fish and Game Code
FHWA	Federal Highway Administration
FIP	Federal Implementation Plan
General Plan	City of Placerville General Plan
GHG	greenhouse gas
gpd	gallons per day
gpm	gallons per minute
HAP	Hazardous Air Pollutant
HFC	hydrofluorocarbon
HWC	Highway Commercial
IRWMP	Integrated Regional Water Management Plan
K	Kindergarten
LCFS	Low Carbon Fuel Standard
Ldn	average day-night sound level
Leq	equivalent sound level
LOS	level of service
Lv	velocity level
MCAB	Mountain Counties Air Basin
MCL	maximum containment level
mgd	million gallons per day
msl	mean seal level
MLD	Most Likely Descendant
MMtCO2e	million metric tons of CO2 equivalent
N2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NHPA	National Historic Preservation Act
NO2	nitrogen dioxide
NOA	naturally occurring asbestos
NOP	Notice of Preparation
NOx	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
OPR	Office of Planning and Research
PFC	perfluorocarbon
PG&E	Pacific Gas and Electric
PM10	particulate matter less than 10 microns in diameter
PM2.5	particulate matter less than 2.5 microns in diameter
ppm	parts per million
PRC	Public Resources Code
psi	pounds per square inch
PUSD	Placerville Union School District
RACT	Reasonably Available Control Technology
RHNA	Regional Housing Needs Allocation

RHNP	Regional Housing Needs Plan
ROG	reactive organic gases
RPS	Renewable Portfolio Standard
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SDWA	Safe Drinking Water Act
SF6	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SR	State Route
SVP	Society of Vertebrate Paleontology
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TDF	travel demand forecasting
UBC	Uniform Building Code
UNIPCC	United Nations Intergovernmental Panel on Climate Change
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
VMT	Vehicle miles traveled
VOC	volatile organic compound
WDR	Waste Discharge Requirement
WWTP	Wastewater Treatment Plant